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GUNSHOT WOUNDS OF THE INTESTINES: A CASE OF DOUBLE RESECTION AND ANASTOMOSES WITH MURPHY BUTTON AND CONNELL SUTURE; SPECIMENS.

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The subject of penetrating wounds of the abdomen has received a good deal of attention during the last few years, and those who have had ample opportunity of meeting with this class of emergency work are practically unanimous as to the general lines of treatment. With a better understanding of the nature and consequences of penetrating wounds of the abdomen, and with improvements in surgical technique and the management of such cases, the mortality rate has been considerably reduced. When physicians in general will have awakened to the seriousness of penetrating abdominal wounds, and when immediate operation will be the rule, we may hope to have still greater success in the treatment of such cases.

Regarding gunshot wounds of the abdomen, I had occasion to operate on a case which came to the City Hospital, and which proved to be interesting in a number of respects. In the first place, owing to the large number of perforations of the intestines and mesentery, it was unusual; secondly, there was extensive bowel resection; thirdly, there were two resections at one operation; and fourthly, the case was one in which the utility and comparative value of the Murphy button and the Connell suture were well illustrated. The history of the case is as follows:

History.—The patient, John I., colored, age twenty, jockey by occupation, was admitted to the hospital May 5, 1903, with diagnosis of gunshot wound of the abdomen. In his habits he was moderate, and he lived a regular life. One brother was said to have died of hæmorrhage, but no definite family history of tuberculosis could be obtained. He had had gonorrhœa and syphilis. It was also learned that he was subjected to pulmonary hæmorrhage, and four months before entering the hospital he had an attack of pneumonia. The patient was accidentally shot by a friend with a .32 caliber revolver, the bullet entering the lower part of the abdomen

near the median line in a direction downward from right to left. As soon as possible the patient was sent to the hospital.

Examination.—The patient was of slight stature and was well formed. Nothing abnormal was noticed about the chest except the presence of a few mucous rales. There was no abdominal distension, and on percussing the lower part of the abdomen a flat tone was elicited; pressure here was painful, especially so, just below the umbilicus. When first received the patient was somewhat in shock, and his pulse was weak and rapid. He felt drowsy and apathetic, and when undisturbed was not in pain. He had not vomited nor was he even nauseated.

The bullet wound was situated about halfway between the pubes and umbilicus, and was a little to the right of the linea alba. The case was prepared as for laparotomy, the contused and dirty margins of the wound were trimmed, and the wound was probed with a sterilized finger. Penetration of the abdominal cavity was found to exist, and the distended bladder could easily be felt. When catheterized, clear urine was obtained. Preparations for laperotomy were made at once.

A median incision about four inches long was made below the umbilicus. The peritoneum was found bulging, was dark in color, and when incised a great quantity of blood gushed from the abdominal cavity. The presenting loop of intestine was delivered through the wound, examined, and in close proximity four perforations and two severe bruises of the intestine, and a bad laceration of the mesentery were found. The bleeding mesenteric vessels were ligated, and about eight inches (20 cm.) of the injured intestine resected. The mesentery was severed as close as possible to the intestine, and end-to-end anastomosis was here made with the use of the Murphy button.

Lower down along the intestine more perforations were found, there being a limited area, ten perforations and six severe bruises of the intestine and five perforations of the mesentery. The bleeding mesenteric vessels were ligated, and nearly three feet (85 cm.) of intestine were resected. The mesentery was here likewise severed as closely as possible to the intestine. An end-to-end anastomosis was made, using the through and through stitch as recommended by Connell. In each instance the cut margins of the mesentery were laid side by side, and were whipped over with fine silk suture. Care was also taken to strengthen the mesenteric portion at the site of anastomosis.

The entire small bowel, the ascending and descending colon, and the sigmoid flexure were examined in a systematic manner, and no further perforations were found. The abdominal cavity was flushed with several gallons of saline solution, and numerous clots and fecal matter were thus removed, Gauze drains were placed into the right and left iliac fossæ, a third behind the bladder and a fourth under the sutures of the abdominal wound. Closure of the abdominal wound was made with through and through silkworm-gut sutures. The operation lasted an hour and a half. The patient had received stimulation of strychnine and hypodermoclysis

of saline solution. He took the anesthetic well, and, although his pulse was very weak, he soon rallied after the operation.

Post-Operative Course and Treatment.—In the post-operative treatment it was desirable that the patient be kept quiet ,that drainage from the abdominal cavity be promoted, that the wound be properly treated, and that the intestinal track be kept clear and free from distension by gases.

Shortly after the operation the patient was very restless, and this condition was met by the administration of morphine. For abdominal pain and for the moderate distension of the abdomen, the hot saline pack was found to be of some service. After the first two days the patient became controllable, and after the first week the patient was permitted to roll from side to side in his bed and enjoyed considerable freedom.

Drainage of the abdominal cavity was promoted by the Fowler posture, namely, by elevation of the head of the bed. The drains were loosened and gradually withdrawn, and with daily dressing the drainage was complete, and at no time was it purulent in character. The wound was kept perfectly clean and drains and sutures were removed by the ninth day.

The management of the intestinal track was an important feature. All nourishment by mouth was withheld. Rectal feeding was started on the day following the operation, and alternately every three hours. The patient received nutriment and saline enemas. Even water was not given regularly by mouth until the ninth day. The giving of enemas in this case caused but little rectal irritation, and it was interesting to note how the patient's appetite was appeased by the rectal feeding.

For the most part the abdomen remained perfectly flat and was seldom tympanitic. The patient's bowels moved regularly, and at no time was it necessary to give a laxative. The Murphy button was discharged on the fifteenth day, having passed over the Connell suture in its course. The patient was now placed on a liquid diet, and rectal feeding was discontinued.

The patient occasionally complained of a cough, and on the evening of the fifteenth day he had a severe attack of pulmonary hæmorrhage from which, however, he soon rallied. On the seventeenth day the patient, being convalescent, the case was presented before the Medical Society of the City Hospital Alumni, and he seemed none the worse for the experience. On the morning of the nineteenth day, the patient, while asleep, had a second attack of pulmonary hæmorrhage, from which he never recovered. The urinalysis showed the presence of albumin on the first day, but the findings afterwards were always negative. Except when suffering from pulmonary hæmorrhage, the patient's temperature, pulse and respirations were practically normal.

Autopsy.—On opening the abdomen it was found that in places adhesions had been formed between the intestines and the peritoneal portion of the surgical wound. There was no peritonitis. A search for the anastomosis was made and not being able to definitely locate the repaired portions of the intestines, they were removed *en masse* for future examina-

tion. The left lung showed emphysema; the right lung was congested, firm and the bronchi with their smaller ramifications were filled with blood and clots. In the area of greatest congestion there was a small cavity which in all probability was of tubercular origin. The other viscera were practically normal, and the diagnosis of pulmonary hemorrhage was confirmed.

Specimens.—In the resected portions of intestines there were fourteen perforations, and eight severe bruises of the intestines and six lacerations of the mesentery, there being a total resection of about three and a half feet of intestines.

The anastomosis by means of the Connell suture was in the small intestine about three feet from the iliocecal valve. At its location there was a mass somewhat smaller than an English walnut, which resulted from the contraction of the severed mesentery. The cut margins of the mesentery had contracted until they formed a surface but three-quarters of an inch in length. At this location the intestine, with the line of action in the elbow, became folded upon itself as if to straddle the raw and cut surface of the mesentery, and in this position adhesions took place, which firmly united the intestine to the raw surface. By this process there was considerable overlapping, or folding of the intestine upon itself, and owing to the adhesions which formed, the effect was that of very extensive tier or layer suturing. Over the line of union of the intestine, in great part, the peritoneum was smoothed, but near the mesentery detachment, adhesions had formed.

For the purpose of microscopic examination and for an understanding of the inner portion, the intestine was incised in the direction of its axis and through the line of union. It was noticed that a diaphragm about 2 mm. across was present and extended in a circle around the inner portion of the gut, except near the mesenteric attachment where it was deficient. The lumen at the union of the gut was sufficiently large to permit the passage of a large-sized Murphy button, and easily admitted the tips of four fingers. Upon closer examination it was found that the union was mostly by the peritoneal approximation, and was strongest at the exposed or irritated portions of the peritoneum, *i. e.*, at the cut margin, and at the peritoneal approximation at the elbowing or turning in of the intestinal coats occasioned by the tying of the sutures. The union between the peritoneal layers of the diaphragm itself was not firm. The specimen shows two loose sutures still remaining.

The anastomosis by the use of the Murphy button was also in the small intestine and was about ten feet from the iliocecal valve. The outer surface of the union was nearly everywhere smooth, and the location of the anastomosis was only found by a thickening of the mesentery at the site of anastomosis. The intestine was here also opened for examination of the interior. The line of union could best be made out by transmitted light and was very narrow. The union consisted in a narrow band of connective tissue, which ran parallel with the folds of the mucous membrane uniting the peritoneal layers.

There was absolutely no diaphragm. In places over the line of union the mucous membrane was continuous.

The specimen also shows a contused area that was left intact at the time of operation. This is an important observation, because it teaches the surgeon how dangerous even contusions, if overlooked, may be, since in this case the result of injury shows itself even after eighteen days, while the healing process at the point of anastomosis showed healthy tissue.

I have gone more or less fully into the details of this case, because they illustrate certain points in regard to the treatment of penetrating abdominal wounds. The symptoms of penetration are so various that often no definite clew may be obtained. A patient having a penetration of the abdomen with injury to viscera may have no symptoms at all. In other cases the signs and symptoms may be pain, vomiting, anæmia, rapid and weak pulse, collapse, abdominal distension, bloody urine, etc. However, regardless of symptoms a diagnosis of the condition should be made and under aseptic conditions the wound should be explored by dissection or by probing with the sterilized finger. If necessary an anæsthetic should be given for this purpose though this is very seldom required. When penetration of the abdominal cavity has been demonstrated, immediate laparotomy should be insisted upon.

The prognosis without operation is very grave and cases usually die of peritonitis, hemorrhage or shock. The prognosis after operation depends not only upon the nature of the injury, but also upon the time that has elapsed after the accident. Cases that permit of an early and quick operation offer the best prognosis.

The treatment in brief consists in immediate operation, the control of hemorrhage systematic search for injury and its repair, cleansing of the abdominal cavity and drainage if the peritoneum has been soiled.

In perforation of the intestine or stomach unless drainage is wisely employed peritonitis and death usually result. It should be remembered that drainage seeks the dependent portions of the abdominal cavity and collects in the fossæ and depressions. and that with the patient in the Fowler position the pelvis in particular should be well drained. Gauze wicks or tubes may be used for this purpose, but when tubes are used it is essential that the accumulated secretions be actually removed by suction or otherwise. If the incision is above the umbilicus and if the upper portion of the cavity has been soiled, it may be well to place drains under the liver and in the splenic fossa; if drainage here is found unnecessary the incision may be entirely closed, and, as advocated by Dr. John Young Brown, a drainage tube may be placed into the pelvis through a stab in the lower portion of the abdomen. Experience has shown that while the upper portion of the abdomen may be perfectly clean, the pelvis will often contain blood clots or infectious matter. It is well always to place a drain at the site of the original injury.

In recent cases, having thorough drainage in view, nothing is quite so efficacious in removing infectious matter as *copious* flushing of the abdominal cavity with sterile saline solution. Fecal matter, particles of

food, blood clots, clothing, etc., that are often remote from the seat of injury and field of operation may by this means be removed. Saline solution in the abdominal cavity lessens shock, stimulates the heart, causes a leucocytosis and hastens the production of plastic material, and greatly lessens the thirst after the operation.

The post-operative treatment is much the same as is usually instituted in laparotomies. Best results are obtained with the patient in Fowler position, thorough and complete drainage, and saline nutriment enemas, at least for the first few days. Opiates should not be given indiscreetly and laxatives may be indicated after the first day. Cardiac stimulants may be necessary when the pulse is weak, but hypodermoclysis of physiologic saline solution will usually meet this condition.

In conclusion we may state that the case is interesting as one illustrating multiple and extensive injury to the intestinal tract, there being twenty-eight indications for surgical interference, which, however, were met by resection in two places.

That, as illustrating multiple resection at one operation, the case is rare, and to my knowledge it is only the second case in which a Murphy button was discharged over the Connell suture. (Dr. Louis Rassieur has had a similar case in his experience.)

That in cases of serious injury to the intestine or mesentery, resection is safer than repair of the injury.

That large portions of the intestine, especially of the ileum, may be resected with comparative safety, and the tendency to shock is less if the mesentery be severed near the intestine, and that then also the danger of gangrene of the intestine is lessened.

That it is advisable to cover all raw surfaces with peritoneum.

That, as illustrated by the repair at the Connell suture anastomosis, it is best when repairing the intestine with the Lembert suture to lay the line of sutures in a direction around the intestine, and that then extensive tier suturing can be made and yet leave the lumen large enough for the passage of the intestinal contents.

That in end-to-end anastomosis both the Murphy button and the Connell suture are useful as a means of intestinal union.

That of the two methods the Murphy button gives the more desirable results, and does not leave a diaphragm.

That the Connell suture when properly applied leaves the lumen of the intestine sufficiently large for the natural performance of digestive function.

That in the Connell suture the resulting diaphragm should be just sufficiently large to retain securely the sutures, and the cut margins should be carefully approximated to facilitate and insure prompt union and thus preveut separation of the two layers of the diaphragm.

That even bruises of the intestines and mesentery should be considered as serious, and that it is safer to repair such injury than to run the risk of gangrene of the affected portion.

A PLEA FOR EARLY EXPOSURE OF THE MASTOID ANTRUM AND CELLS IN PERSISTENT ACUTE OTITIS MEDIA PURULENTA WITH PAIN.

By J. C. Buckwalter, M. D., of St. Louis, Mo.

In our otologic practice there is no condition requiring more exact judgment, skill, and foresight than the diagnosis and treatment of acute otitis media or earache. This is especially true in cases where the pain continues for several days or weeks with more or less constancy and persistency, alleviated only by powerful analgesic measures. Where applications of heat or cold or depleting by the artificial or real leech brings some relief for a brief period only; where spontaneous perforation or free incision of the drum membrane brings nothing but continued or even aggravated pain; where there may be little discharge or there may be a profuse flow of sanious sero pus of a light yellow, thick, inodorous; where on inspection the drum membrane has the appearance as though it were being forced outward; where the upper part of the drum, or Schrapnell's membrane, is bulging, as is the posterior wall of the auditory canal; where the intense vascular tension of the middle cavity is marked by the pulsations transmitted to the fluid walling up the opening in the tympanum and that in the canal.

Undoubtedly many have observed that in adults an ear affection of this nature is always a condition of more serious moment than it is in children or infants. The reason is perhaps due to the difference in the anatomic structures of the middle ear cavity, the mastoid attic, antrum, and cells. In adults the middle ear cavity, the attic, the antrum and mastoid cells are roomy, and the communication between these various cavities is more accessible than in children and infants.

The rapidity with which an infection of the middle ear space in adults spreads to surrounding parts is often marvelous. The progress of this invasion may be so rapid and the objective symptoms, namely: tenderness, redness, and swelling may be absent or so slight that they act as no criterion pointing to the gravity of the condition. Before one can realize it the whole mechanism of the middle ear cavity is a mass of pus, necrotic tissue and exuberant granulations. These granulations show nature's efforts to stay the onward march of the infective invasion. A condition of this kind, which is only five to seven days in developing in adults, usually takes much longer to develop in children, and in the latter all the symptoms are so marked that the nature and extent of the trouble is easily determined.

The cortex or outer plate of the mastoid bone in adults is very thick, hard, ivory-like and difficult to chisel or trephine, while in the young the cortex is thin, soft, and pervious. From the nature of the outer bony structure it is clear how in adults the ravages of an extensive inflammation and virulent infection can become without the slightest external indica-

tions or signs showing that any marked pathologic changes are taking place within the bone itself. In the young, where the inflammation and infection is at all severe, the cortex is invariably perforated. There is a periostitis, and we have plainly before us a picture of mastoiditis.

How difficult, then, to know in cases of prolonged earache whether one is dealing with an otitis media or a mastoid abscess with brain complications. There may be no characteristic pain of impending brain involvement; the pain may be confined to the middle ear, but when dashes of pain radiate to the temporal, to the occipito-parietal tempero-parietal, or frontal regions, dull, boring, tormenting, tantalizing, severe, shooting or neuralgic, not even dispelled by stupefying drugs which produce only a broken unsatisfactory sleep, one may rest assured that he is dealing not only with otitis media but with concealed mastoiditis, and possible brain complications.

Indeed, there are often symptoms of cerebral irritation accompanying the mastoiditis. There may be vertigo, vomiting, extreme weakness, indigestion, constipation, impaired memory and slow cerebration. Temperature may be normal, subnormal, or high. The pulse may be slow, rapid or normal.

In all cases of persistent earache therapeutic measures must be vigorous, active, and rapid in succession. Attention given to the general condition of the patient. Antiphlogistics and counter irritants are in place; extremes in heat and cold; depletion by means of the artificial or real leech; incision of the drum membrane. When the above fail to give relief the radical mastoid operation must be resorted to.

There are few conditions where therapeutic annihilism and procrastination is to be more deplored. The use of extreme heat or cold should be tried in each individual case. What may be a panacea in one case aggravates another. Thus the better rule to follow is to use that which gives most relief, irrespective of the stage of inflammation. However, in the early stages, extreme cold seems to give the better results, although, at times, one meets those who cannot bear extreme cold. While the ice bag or coil are invaluable in giving relief, some precautions must be observed lest the benumbing influence on the tissue is so great as to obscure and mask all symptoms. Many patients do better by heat, even in the early stages, and all cases in the later stages derive most relief from it.

The application of leeches often produces marvelous results in relieving congestion, inflammation and pain. We have access to either the artifical or real leech. In otologic practice the real leech is preferable, owing to the fact they are more easily applied, since it is not a simple matter to apply the artifical leech to the bony structures about the ear. In applying leeches, three or four should be applied along the mastoid bone immediately back of the attachment of the ear, two immediately anterior to the tragus, and allowed to remain until they release themselves gorged with blood. This measure often gives remarkable relief from

pain and causes a subsidence of the inflammation, sometimes aborting mastoiditis.

In a case where the tympanic membrane is perforated, but the opening is small, the membrane bulging, especially the upper posterior part or the region of Schrapnell, a liberal incision should be made, commencing at the lower border of the posterior half of the drum, passing upward through the flaccid membrane outward through the cartilaginous part of the canal three-fourths of a meter. The term paracentesis has no place in otologic nomenclature, since a liberal incision is the only operative procedure of any value.

It is oft-times extremely difficult to know when to advise a radical operation in these obscure conditions. It may seem unduly meddlesome to operate with no decided signs of mastoiditis, but one is justified in making a timely exposure of the cavities in every case of persistent pain. By so doing the ravages of this destructive infection can be lessened, the number of cerebral involvements avoided and many lives saved.

To Summarize.

1. In adults an earache is a condition of serious moment from the beginning, and should be kept constantly under observation. Heed the warning of persistant or intermittent pain.

2. Even with none of the classical signs of mastoid involvements, the ravages of infection from acute middle ear trouble may threaten or penetrate the surrounding cranial structures with little or no warning.

3. Do not wait for classical signs of mastoiditis. Given indefinite pains in the ear and head, advise the radical mastoid operation early.

I will report briefly a few cases:

Case 1.—One Saturday in March I was called upon to see a patient who had entered the hospital on Thursday.

Patient complained of having developed an ear-ache in the left ear three weeks before, following a bad cold in the head. After a week of almost continuous pain the ear commenced to discharge profusely, after which the pain was somewhat easier, but at no time absent. Eight days after the onset the pain extended to the left temporal and left frontal regions. On about the twelfth day the patient felt dizzy and it seemed difficult to retain equilibrium.

Status Præsens.—Age, twenty-nine; pulse, 120; temperature, 102; respiration, 16. Patient seemed stupid, answers slowly. Face has the expression of intense suffering. Eyes—External examination negative, ophthalmoscopic examination reveals beginning neuro-retinitis in left eye. Nose—Deflection of septum to the left, totally occluding the nostril. Throat — Negative. Ear — External canal filled with thick yellow, inodorous secretion. After removing the secretion, exposing the drum, a preforation the size of a pin head in the posterior part of the membrane was revealed. The membrane was bulging and extremly hyperemic with distinct pulsation to the secretion oozing through the preforation. Examination of the mastoid bone, no swelling, no redness, only slight tenderness in the mastoid fossa. Recommend that the antrum

and mastoid cells be opened at once. However, not until two days later was this done, and not until the patient was moribund was he placed upon the operating table.

On exposing the cells, antrum and middle ear cavity, we found them filled with pus and granulations. The operation was extended, the brain being exposed in the spheno-temporal lobe, resulting in the evacuation of a quantity of pus from the brain abscess located in this region. Patient died six hours after the operation. No post mortem.

Case 2.—November 3, 1903, Mr. S., age forty-eight, consulted me for earache in the right ear, from which he had suffered for the past three days. The pain, radiating to the right frontal and to the parieto-temporal region, is so intense that he has not slept for three nights.

Status Præsens.—Inspection of the ear reveals the drum membrane hyperemic and bulging, especially the posterior and upper parts. Does not hear watch in contact. Pressure over the mastoid elicits no pain or tenderness. There is no swelling or redness over the mastoid bone or process. No pain in the mastoid region. Temperature, 99; pulse, 96.

Incision of the drum allowed the escape of a small quantity of sanious fluid; a few hours later the secretions became more purulent and thick in consistency.

The operation gave some relief for a few hours only. A few hours of broken sleep was induced by trional and phenacetine. During the three days following, leeches, hot and cold applications gave little relief. Analgesics and soporifics were diligently used, giving only partial relief. On the third day after being consulted, or six days after the onset, I noticed a slight facial paralysis, and symptoms of cerebral irritation developed, with difficulty in locomotion, vertigo (of objects revolving), slow cerebration and impending failure of memory. On the evening of the sixth day patient was sent to the hospital. On the afternoon of the seventh day I performed a radical operation, converting the middle ear, attic, antrum and cells into one cavity. The entire pneumatic space was a mass of granulating tissue.

The following day the facial paralysis was still more marked. After the operation the patient slept some during the night, but still complained of some pain, which disappeared at the time of the first dressing, forty-eight hours later.

At the time of writing I have not seen the patient for four weeks, but when last seen the palsy had nearly disappeared. The galvanic and Faradic currents were used on the face every other day. At no time in this case did the temperature go above 99. At the time of the operation the temperature was 98.4; pulse, 96.

Case 3.—February 21, 1903. Miss F., age thirty-nine, complains of having had the grip for the past week, accompanied with hardness of hearing in both ears; also stopping up of the nose, especially the left nostril. Last evening the left ear began to ache, continuing all night.

Status Præsens.—Inspection of left ear shows the membrane exceedingly congested and bulging. A liberal incision was made upward through the posterior half of the membrane and

through the flaccid membrane. Free bleeding followed; later a sanious fluid, and the next day a muco-purulent yellow inodorous secretion filled the auditory canal. Temperature varied from 99 to 101 during the earlier course of the disease; during the latter stages the temperature remained between 102 and 104; pulse, 98 to 130. The pain subsided until the seventh day, when another incision of the drum was necessary. During this stage at times dull pain was complained of in the occipital, frontal and parieto-temporal regions. During the following ten days different therapeutic measures were pushed. Symptoms varied, with profuse discharge from the ear and more or less pain in different parts of the head and in the ear.

At no time were there any signs of mastoiditis until the seventh day, when there was slight redness and tenderness at the extreme tip of the mastoid process.

The radical operation had previously been advised, but withheld. However, now an operation was insisted upon, and on March 10th the radical operation was performed. The whole mastoid region was laid wide open, this being necessary in order to eradicate the masses of granulating tissue and inflammatory products.

After the operation all severe symptoms subsided until about the eighth day, when I noticed a slight facial palsy, and the patient complained of slight pain in the occipital and parieto-temporal regions, left side. Temperature varied from 98.4 to 100; pulse, 78 to 99. Up to the fourteenth day after the operation the patient improved fairly well. Recuperation, however, was not as rapid as one would expect, still, on the fourteenth day the patient had been up all morning, and at one o'clock when the wound was dressed made the remark that she was feeling very well. At five o'clock that same afternoon the patient suddenly became nauseated, dizzy, and vomited. In fact, all symptoms of brain complications developed. They grew from bad to worse. Two days later the lateral sinus, and the spheno-temporal lobe and fissure were exposed. Nothing definite was learned from this operation, aside from the fact that there was some inflammation of the meninges. Two days after exposing the brain the patient died. A post mortem examination was not granted.

Case 4.—Miss M., aged fifteen, complains of ear-ache in the right ear much of the time during the past three weeks. Often in the night the patient is awakened by a severe pain in the head, which keeps her awake several hours. The ear has been discharging from the beginning of the trouble.

Status Præsens.—General condition of the patient is bad. She has that cadaveric appearance often observed in septic absorption. Temperature, 100°; pulse, 96. Inspection of the ear revealed the external auditory canal filled with thick, yellow, offensive secretion. After cleaning the canal, inspection revealed half of the drum gone. The upper or posterior wall of the auditory canal appeared boggy and swollen. Pus constantly oozes from the middle ear cavity. Not the least sign of mastoiditis could be elicited. Treatment of the general condition and local treatment to the ear gave little relief. On the fourth

day after the consultation an operation was advised and consented to. The radical mastoid operation was performed. The outer mastoid cortex was extremely thick, hard, and difficult to chisel. When the antrum was reached this was found filled with granulating tissue; also considerable granulating tissue was scooped out of the cavity forming the petrous portion of the mastoid bone. The mastoid cells were not involved to any extent, but the attic and middle ear cavities were gorged with pus. After evacuating these cavities the patient made a rapid recovery. The wound was allowed to close and the patient dismissed six weeks later.

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RENAL TUBERCULOSIS.

By J. Block, M. D., of Kansas City, Mo.

A review of the last decade's work in renal tuberculosis discloses a revision of the subject practically reversing many accepted notions and laws. The opportunities granted by a more enlightened pathology and bacteriology and the enormous increase in the surgical work on the kidney have both contributed to this change of view.

The bone of contention whether the renal tubercular affection was primary or secondary as applied to the uro-genital tract has only so recently met with a decision that it will be unnecessary for me to crave your indulgence in presenting what might be considered trite, if not threadbare.

Based upon a verdict favoring the former view the surgeon is now in position to be of positive service to mankind. He need no longer hesitatingly offer himself as a palliative apologist, but come boldly forward announcing his ability to radically cope with this dreadful scourge.

Were it equally possible to recognize the disease in its incipiency, or even early in its progress, there could be no question as to the success attending his efforts. Unfortunately this is not always easy, even with the more progressive practitioner unwilling to accept things for what they seem. When once, however, the idea becomes fixed that tuberculosis of the kidney often, if not always, is a primary affection the battle is half won, wresting this branch of the service, as it were, from the impossible in the therapy of consumption.

Early in the '90's, when I had the pleasure of following the acknowledged leader among the French in this specialty — the distinguished Prof. Guyon—it was still his unqualified dictum that the kidney lesion was always secondary to an affection below; that uro-genital tuberculosis primarily situate in the bladder with an accompanying involvement of the genital adnexa became an ascending disease through infection by continuity. Based upon an acceptance of this theory and a general belief in its truth, it is easy to understand why that period was as fruitless of results as it is today in the treatment of the primary vesical disease.

A circumstance still further assur-

ing the aggressive surgeon is the now almost indisputable fact, that not only is the renal process often primary, but what is equally important, that it is generally unilateral. Thus, Israel has proven the absence of a symmetrical affliction in all but 11 per cent. of his cases. This conclusion is based upon post-operative necropsies and cure following nephrectomy. Furthermore, the unequal extent of the disease when bilateral suggested consecutive and not simultaneous involvement. The statistics of Vigneron showing a bilateral renal tuberculosis in about 50 per cent. of unoperated, as compared with 17 per cent. of operated cases, is but corroborative evidence of a subsequent encroachment upon the second organ in unrelieved instances of long standing.

Again, the formerly prevalent opinion that the presence of associated tuberculosis in the sexual adnexa necessarily meant a descending, or perhaps ascending, process is opposed by newer evidence, showing that both are homogeneous in origin and not inter-dependent. It is true that Guyon and many others taught that a vesical, or urethral, tuberculosis is almost always associated with a more or less involved sexual apparatus, though the converse was not insisted upon, and yet I have under observation an instance in which all divisions of the sexual system are symmetrically diseased, the urinary tract remaining intact in its entirety. These apparent vagaries will no doubt be compassed under some general law as our observations increase and the knowledge of tuberculosis in general advances.

In a general way, excluding, of course, an acute miliary process, renal tuberculosis may be classified anatomo-pathologically under three heads.

First, the caverno-caseous form; second, an ulcerous form limited to one or more papillæ, and third, a tuberous form resembling the acute miliary type, but distinguished from it by its chronicity, size of the tubercles and its unilateral presence. This is the classification of Israel.

The first is not always easily distinguished, especially in the later stages from an ordinary pyonephrosis. The foci involving the parenchyma generally abound about the cortico-medullary borders. Breaking down, they coalesce often communicating by an ulcerating process forming abscesses of varying size situated at different levels from the surface, irregular in contour with ragged surfaces covered with projecting granulations.

In their progress, owing to the pressure effects of their contents, they may approach some regularity in size and lose the characteristics distinguishing them from the ordinary pyonephroses.

Progressing peripherally a focus penetrates the capsule involves the perirenal fat, forming dense adhesions between the capsular investments and the surrounding structures, gradually immobilizing the organ. This is of much diagnostic importance, my own experience showing that the emphasis which Israel calls attention to this feature should not be disregarded. Not only does the organ fail to participate in the respiratory movements upon palpation, but it remains rigidly fixed even after division of the abdominal wall.

Sometimes a large sclero-lipoma-

tous mass leaves a veritable tumor, even after nephrectomy and in not a few instances the removed organ is even smaller than normal. This perinephritic encroachment may be direct by contiguity, due to a fungus-like propagation, gradually spreading in the fatty capsule, or it may extend as an inflammatory process through the lymph spaces. Finally, a suppurative process, indistinguishable from an ordinary perinephretic abscess may mislead the operator. Believing his duty discharged with its evacuation, he subsequently finds a fistula, communicating with the original focus, to convince him of his error.

This sclerotic process is not confined to the capsules. It involves the ureter, which becomes enormously thickened and correspondingly shortened and rigid and its lumen often reduced. This may be due to a secondary infection. Should it be tubercular, however, the mucosa reveals the cause in an ulcerative process more or less extensive.

All of the previously described processes are beautifully illustrated in the specimens before you.

The papillary form, often confined to one paplilla, may consist of a shallow, irregular ulcer of a roughened or warty appearance, covered by a yellow exudate. This accounts for the copious and continuous bleeding resembling those due to a neoplasm.

The tuberous type, spreading along the straight tubules like a string of pearls or projecting from the cortex in irregularly rounded plaques about a simulating central infarct, very much resembles the ordinary surgical kidney.

Finally, there may be a polar tuberculosis, with the process actually limited to an extremity, accounted for by a vascular anomally from either the renal artery or aorta separately supplying the district without inosculation.

Of the three processes, the caseocavernous (either disseminated or limited to a pole), and the papillary, only are amenable to surgical treatment with any hope of success. The tuberous form means a rapid process, soon invading other viscera even after nephrectomy.

Statistics seem to show that the malady is most prevalent between the ages of twenty to forty, though I have operated upon a boy of less than ten and a male at fifty-five. That sex seems to exercise a preponderating influence is shown by a percentage of nearly seventy in favor of the female.

Unfortunately, the clinical phenomena usually attending a tubercular renal process reflect themselves in irradiated vesical symptoms, misleading clinician and patient alike. Thus the treatment is directed to the mitigation of the symptoms, owing to the insistence of the one and the indifference of the other.

Operating upon a male a short time ago I found that for several years he had been the recipient of various bladder treatments under the misapprehension that he had a chronic cystitis, and that too from a very clever surgeon. Another, a young female, suffered only from a species of incontinence for five or six years, for which the customary remedies had been exhibited, and only four months prior to coming under observation had more urgent and serious

symptoms awakened the suspicion of something more formidable. By this time the immobilized tumor filled nearly half the abdomen. Again, I once attended and operated upon a young boy reduced to a bed-sore skeleton, with the left kidney filling nearly half the abdomen, where a perineal boutonniere, done some months before and still patent, revealed a partly pardonable error, so urgent had been the vesical symptoms.

Those familiar with the clinical data of urogenital pathology realize how commonly the cardinal symptoms of hæmaturia, dysuria, pyuria, polyuria and pollakiuria are shared by a variety of affections totally dissimilar. No wonder that the unwary are easily misled. It is only by a careful scrutiny and a surveillance of the sequence, duration, frequency and intensity of these phenomena, *plus* the aid of physical examinations, including those refinements obtainable with instruments of precision, that we can arrive at fairly definite conclusions. I would not have it understood that an absolute reliance is to be placed in the more modern appliances to the exclusion of our trained senses. The former have their limitations, and, exclusively employed, may prove humiliating in results to those wedded to their use. Equally disappointing will be the refusal of those obstinately ignoring the utility of our modern armamentarium.

In most cases the incipiency of the trouble is announced by a slight increase in the number of micturitions, generally nocturnal, with or without a slight dysuria or burning sometimes during or at the end of micturition. Sometimes this desire to urinate may be imperious, as in the female patient just instanced, where it amounted to a practical incontinence. This has been variously ascribed to an altered urine passing over the bladder mucosa or to a nervous irradiation from the kidney to the ureter or bladder. Occasionally only the pain is referred directly to the kidney, especially during urination. In the later stages the dysuria and frequency may mean a vesical intolerance due to a descending tubercular process reaching the ureteral ostium.

The urine may be macroscopically clear in the beginning, usually, however, it is slightly turbid owing to the presence of leucocytes. It is generally acid and only slightly increased in amount corresponding to the frequency. A polyuria may develop later owing to sclerotic changes in both the afflicted and the opposite kidney, and unless the second become involved in either the tubercular process, or undergo amyloid change owing to protracted suppuration, the amount of albumin is small, perhaps half part per thousand. Casts are seldom present.

In the early history hæmorrhages are not infrequent, though of short duration and often only miscropically determinable; where the seat of the disease is papillary this may be copious. Sometimes a decided though short hæmorrhage with a renal colic due to a congestive process and similar to an hæmoptysis may be an introductory phenomenon. The later renal colics are generally indicative of an obstruction in the ureter which may disappear with its removal. These colics often disclose their causal

relationship by an increased renal swelling and diminished pyruia during the attack, succeeded by inversed proportion during their abeyance.

To assume that bacilli are always present merely obscures the diagnosis. This is one of the limitations mentioned when referring to the preciser methods now added to our ken. In the vast majority of cases, with the disease limited to the kidney they are absent. When once the ureter and bladder become involved the majority reveal the pathogenic micro-organism.

Perhaps a more extended employment of the cultural methods, tuberculin or animal injections, will extend the scope of diagnostic possibilities.

With a renal limitation, cystoscopy may show a swelling about the ureteral orifice on the affected side. With a descending process added the swelling is replaced by a circumferential miliary projection about the ostium with or without ulceration. This limitation of the tubercles is of great differential value and importance, determining at once its secondary nature and the probable freedom of the opposite kidney. When the affection is primarily vesical it is more diffuse and apt to begin about the internal urinary meatus. Owing to the thickening and shortening of the ureter in the more advanced cases a funnel-like retraction substitutes the papillary projection usually present at the ureteral orifice.

In the more advanced cases, especially in reduced subjects, palpation reveals an immobilized tumor in the corresponding flank. Early this is not always an available means, for the enlargement is not always great. It seldom exceeds double the normal size, and it may be well buried in the diaphragmatic vault. Yet I have operated upon several patients where the tumor extended to and beyond the crest, and even to the venter of the ilium, with a lateral encroachment beyond the median line, and in one instance the amount of pus was too small to account for this enormous enlargement alone.

An important feature not to be overlooked is vaginal or rectal touch. This renders the thickened tube palpable, should the ureter be implicated.

These patients, though generally, are not always reduced in flesh, depending very much upon the chronicity of the affection, the presence of fever, due to the absorption of septic materials, with associate inappetence or diarrhœa. They are always anæmic, however, the hemoglobin reduction amounting to as much as 50 per cent.

With an involvement of the bladder there is greater opportunity for the absorption of septic materials coming from above, and there may be a regularly intermittent or irregular pyrexia, with or without diaphoresis. In a case recently operated upon, which, from the large quantity of pus present, resembled a retention cyst, the temperature was oftener sub than above normal.

Though it may occasionally happen that a renal tuberculosis is strictly primary, *i. e.*, protopathic, in its relation to the general economy, yet in a larger number of instances it is deuteropathic, evidence of a cured or latent tubercular process elsewhere being found upon closer scrutiny. Bone or joint affection, cervical glandular enlargements, scars or abscesses,

not to speak of slight pulmonary deviations, may enrich our knowledge.

To enter into every particularity of diagnosis differentiating this from other kidney affections would lead me beyond the intended scope of this paper. A proper appreciation of the items as presented in the synoptical clinical picture, however, would prevent one going astray in the majority of cases.

With the idea of a renal tubercular process well established in mind, there yet remains the possibility of our extending our information to the condition of its fellow. Our decision to interfere may depend upon this solution alone.

Generally speaking, the opposite kidney may be, if at all implicated, the seat of a beginning or advanced tuberculosis, an amyloid or sclerotic process, and, what is most frequent of all, engaged in a septic contest, the burden of eliminating the depraved materials engendered upon the involved side resting almost, if not solely, upon it. This has been aptly termed a toxalbuminuria, curable by removing the cause.

Can we, however, with any degree of certainty, pronounce upon the condition of the opposite organ and the extent of its involvement? Can we always accept our findings as confirmatory or prohibitory indications for surgical intervention? Experience grants an affirmative answer in the majority of cases appealing for decision.

Suppose the bladder is still sufficiently tolerant to admit a cystoscopy and ureteral catheterization. A segregation will yield fairly accurate results. That this is not always possible, either under local or general anæsthesia, I must admit, for I have seen the apparent vesical capacity, or rather tolerance, reduced to a few drams.

The presence of a small quantity of albumin, perhaps a few hyaline casts, and the absence of bacilli, would speak for a form of nephritis common to many infections or fevers. Generally speaking, they are benign, undergoing resolution upon removal of the cause. Suppose, however, that the albumin be large in amount, with a low gravity and pronounced polyuria, it might suggest an amyloid degeneracy prohibitive in its declaration, and yet this is not always certain.

Urinary segregation being impossible, we are thrown upon those natural resources which in their application call for that acumen and judgment distinguishing one practitioner from another.

Thus without local subjective or objective signs suggesting a transfer of the infection by an ascending process to the opposite side, carefully determining the urinary sufficiency, taking into account the albumin allowance for the pus present and not assuming that it is all contributed by the newly involved organ our conclusions will be fairly accurate.

As Israel says, it is better to accept some risk even when the urinalyses segregate or collective seem to contraindicate interference—for their teaching is subject to fallacy—rather than withhold the benefits of an operation from many a good case.

That some of the newer methods, such as Koryani's cryoscopy for determining the blood and urine freez-

ing points, or phloridzin injections, may be eventually available as arbiters in this delicate question I am quite willing to concede, but greater experience alone can tell. These methods, too, require more than the average skill in their application and should be left to those specially qualified.

Nor will we be obliged to refrain from interference even in the presence of a localized vesical tuberculosis, experience proving a post-operative involution possible.

Finally, despite the high mortality, either immediate or remote, attending nephrectomy, should we abstain? Practically every case will succumb after years of invalidism and suffering if left to its fate. Suppose the operative and post-operative fatalities reach 30 per cent. or more, should we deprive the remaining 70 per cent. of the benefits of surgery?

Unfortunately, judging from my own experience, most of these cases are reserved for surgery as a dernier resort. Could they be made selective by an earlier diagnosis and prompt intervention the immortality could be reduced by half.

Assuming that interference is feasible, what is the best method of attack?

Without denying that tuberculosis here, as elsewhere, may undergo spontaneous cure, or at least become latent or innocuous, it certainly would be foolhardy to trust to this chance.

Are there any local or general measures in which we can have sufficient confidence to warrant a trial? What is there to be accomplished, even early in the case by antiseptic lavage through the ureteral catheter, even in the hands of those skilled in its use? Nothing, even if we would not take into account the dangers of infecting the opposite tract.

Where a pulmonary tuberculosis amenable to operative surgery pneumonectomy would be preferable to the uncertainty of general or local treatment, no matter how ingenious the device provided for in its application. With an organ as accessible as the kidney and dispensable when the opposite is still functionally healthy, nephrectomy, either partial or complete, should unhesitatingly be accepted as the operation of choice.

I know that there are still those who believe that there is something to be gained by preliminary nephrectomy reserving a secondary nephrectomy for a later period when compelled to complete the work. From my own limited experience, I can only speak of it in condemnatory terms.

Twice I have approached the task in this manner, believing that the exigencies of the cases demanded the so-called conservative treatment, only to regret it. I did this, too, in spite of my own opposed feelings. I am sure as much could have been accomplished by complete work and with less risk. It meant two operations with two anesthetics and two shocks instead of one, and failed to achieve even the partial relief which had been hoped from it.

Remembering the many non-communicative cavities present so well illustrated in the specimens before you, the incomplete though bloody work necessary to break down these septa; or should one attempt to approach it with the hope of controlling hæmorrhage the necessity of mobilizing of

the organ so as to control the pedicle, all show the utter futility of the attempt. Yet the time consumed would be greater than for the average nephrectomy. And what is to be gained? The possibility of saving a few remnants of doubtful function. Again, abscesses between the organ and sursounding structures subphrenic or supra-psoas can only be successfully drained by a removal of the affected kidney.

Access to the organ is preferably obtained extra-peritoneally. The transperitoneal route increasing both shock and the danger of infection does not, as is claimed, increase the operating space. By making either a Bergman or Israel incision below the last rib forward from the spinal muscular mass it can be prolonged downward and forward from the flank parallel with Poupart's ligament to the rectus muscle, even including this in the incision almost to the median line when necessary, thus gaining space sufficient to expose and remove the ureter near its entrance into the bladder.

If possible the kidney should be removed with its investments, care being taken to avoid rupture of the cavities lest specific infection ensue. Where the fixity of the capsule makes total extirpation impossible, subcapsular enucleation can be practiced, care being taken to prevent infection from the region of the pedicle, which is often so fixed as to interfere with proper ligation, thus including residual tuberculous material. The Pacquelin, with retention clamps, may be resorted to to overcome this difficulty.

Either ureterectomy, with cauterization and inversion of the stump or its fixation in the wound, or a special buttonhole for its subsequent treatment, will be necessary to prevent fistula or later infection.

Nephrotomy with resection or amputation of a pole may be successfully resorted to in the papillary and polar forms.

A nephrotomy may replace nephrectomy where the condition of the patient forbids the latter to relieve pus retention or where it is known that both kidneys are involved. It may be of possible advantage, where the cavities are few in number and where they can all be brought in view for conversion into one, to be properly curetted and drained.

ILEO COLITIS IN CHILDREN.

By W. S. Wallace, M. D., of Excelsior Springs, Missouri.

My subject is a seasonable one at this time, as during this and next month we will meet with it more frequently than with any other disease of childhood, and if we are not always on guard it will claim more victims than will any other disease during July and August.

The season of the year points us to the etiology of this disease, probably the most important factor of which is extreme heat. In statistics taken from cases in the hospitals of New York city, it was found that the number of cases of "Ileo Colitis," together with the mortality, rose or fell in more or

less direct ratio with the temperature and atmospheric conditions, and even with us, situated as we are, the debilitating effects of the heated term, together with its effect on the decomposition of food, play an important part in the causation of this disease. Improper food, unripe or over-ripe fruit, copious draughts of ice water, everything which may act to hinder digestion or impair nutrition, acts in a causative relation.

The pathology of this disease has been the subject of many learned discussions, but I am persuaded that post mortems fail to give us an adequate idea of the intense congestion present before death. There is evidently at the beginning a swollen and congested mucous surface, which congestion increases until circulation being interfered with, necrosis and ulceration of circumscribed areas take place which may be superficial or deep, and which usually implicate the glandular structures in the walls of the bowel, the bowel is filled with an acrid, greenish fluid, in which floats fecal matter, shreds of mucous membrane, and may be blood and quantities of undigested food.

The ushering in of "Ileo Colitis," is attended by restlessness and pain, followed by vomiting and nausea, the temperature rapidly rises to 102 to 104 degrees F., bowels become tender and tympanitic, followed soon by alvine discharges more or less profuse. At first thin and watery, later becoming scanty, very frequent and composed largely of mucous, very small amounts of fecal matter and probably blood. The discharges are greenish color, usually all the way through the course of the disease. The quantity of blood and the height of the temperature are usually in proportion to the depth and severity of the ulcerative process. As the disease progresses the little patient shows all too plainly how severe the tax is upon its vital forces by the rapid loss of flesh and great weakness. Under careful treatment the character and frequency of the stools gradually change, the fever falls and the appetite returns, and recovery is soon complete. Otherwise, the temperature remains from 101 to 102, vomiting and frequent bloody stools continue, emaciation is progressive, the dreaded brain symptoms appear, and before long death ends the scene.

It is my custom when called to attend such a case to at once withdraw all food for twelve to twenty-four hours, or until I have thoroughly cleared out the alimentary tract, and then to select the smallest variety and quantity of food consistent with condition, and if necessary, to pre-digest it.

Albumen water (the white of egg with water, a bit of sugar and a few drops of lemon juice).

Sterilized milk diluted with water, lime water, or carbonated vichy.

Bovinine I consider one of the best foods, diluted with water, milk or grape juice, and especially as a rectal nutrutive enema where the stomach is extremely irritable or digestion and assimilation poor, and later during convalescense, sterilized milk or malted milk.

I want to emphasize the fact that the matter of feeding is even more important than medication, and unless it is given the strictest attention you will often meet with failure where

you might succeed. Even the drinking water should be boiled and every precaution taken to prevent further infection of the already inflamed bowel. I have spoken of thoroughly emptying the prima via, and it is of the first importance. It is my custom to give a grain of calomel in divided doses with sodi bicarb. to be followed shortly by frequent small doses of Abbott's saline laxative, two tablespoonfuls in a glass of water and flavored with sugar and lemon, a tablespoonful of the solution to be given every half hour till effect. This once accomplished we can turn our attention to intestinal antiseptics, and of these we have a great number, but a few have proven so effective for me that I am partial to them—the salts of bismuth are among the first, the subnitrate or salicylate, but especially bismuth with resorcin and some of the acids of the phenol group, meet with my approval.

The sulphocarbolates of zinc, lime and soda I find effective where the stomach will retain it. Where the temperature is high the antipyretic and antiseptic effect of salol is sometimes desirable, but the important part is to select the agent you wish to do the work, and then push it to its full effect, give it frequently until the odorless stool and lowered temperature proclaim its effect, use as little of the old symptomatic plan of treatment as possible, study your little patient carefully, make up a clinical picture of its condition, decide definitely what you want to do, then do it.

I have not referred to fever and pain, checking the discharges, etc., because I try to so conduct my cases that these symptoms will not be a factor in the case, but if they come in in spite of me I control fever by cool sponging, and if pain or excessive peristalsis is present it calls for a very minute dose of opium for the time being, but properly handled there is small need for this.

Report of a Case.—Baby B., sixteen months old (a girl), ordinarily well nourished, surroundings very poor and unhygienic, ten hours after eating three half-ripe apples, attacked by severe chill with vomiting and pain I did not see her until four days after the attack; temperature was then 103 ½; pulse, 120; respiration, 30; bowel tender and distended with gas; free alvine discharges of thin, greenish blood-streaked material, with much mucus; odor very offensive. There was great thirst, but water would at once produce vomiting. I gave at once calolactose, two grains dry on the tongue, repeated at one-half hour intervals till six doses were given; resorbisnol, six grain powder every two hours; ordered cool sponging until fever was reduced, and withdrew all food of whatever character. Called the next morning, twelve hours later, to find fever 100; pulse, 110; discharges less free but quite frequent and showing some evidence of biliary secretion but blood-streaked; vomiting had stopped. I ordered the saline solution referred to above, one chocolate-coated tablet every two hours, and there being some tenesmus I gave five drops tinct. opii camph, to be repeated in one hour till effect. At 4 P. M. her temperature was still 100, bowels very tender but less tympanitic; ordered the white of an egg in water every four hours, a small

amount; stopped the saline solution and continued intest. antiseptic one tablet every three hours. This plan of treatment was kept up, and on the fourth day of treatment there was added high colonic flushings and bovinine given diluted, alternately with white of egg, with the flushings continued. The fifth day of treatment showed a normal temperature, and under careful feeding and regulation of bowels when needed with the old neutralizing cordial, this little patient went on to complete recovery by the end of the second week.

This, though brief, will, I hope, serve to give an idea of my plan of treatment of Ileo Colitis, which has furnished me most happy results.

CHRISTIAN SCIENCE—A CONDENSED REPORT OF THE LECTURE OF DR. J. M. BUCKLEY ON CHRISTIAN SCIENCE, DELIVERED AT THE AUDITORIUM OF THE YOUNG MEN'S CHRISTIAN ASSOCIATION, ST. LOUIS, MISSOURI.

Dr. Buckley stated that within the past sixty years many new religions or radical changes of religion had sprung up in the United States. He mentioned modern Spiritualism, which dated its modern form from the Fox girls, inhabitants of a small town in western New York named Hydesville. About the same time Mormonism arose. The third in order of time was Christian Science, so-called, and the fourth was Dowieism. It is interesting to notice that all these have a very strong commercial aspect, and all of them are closely connected with the healing of diseases without medicine. Spiritualism spread very rapidly, and it was claimed that in less than fifteen years there were more than one million who acknowledged their belief in the supernatural character of rappings and other manifestations. Since that time it has experienced a marked decline, and some critics are of the opinion that it has gone into comparative obscurity, because it is impossible for a community or a nation to support two great general superstitions or fads at the same time. The Spiritualists say that a considerable part of those who would naturally affiliate with their views, have become Christian Scientists.

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The proper name for Christian Science is Eddyism. Calvin stands for a special view of Christianity which is described as Calvinism; Arminius opposed the views of Calvin, as his system is known as Arminianism; the reformation under Martin Luther is known as Lutheranism; by Wesley as Wesleyanism. Mrs. Eddy claims more originality than any of these, and exercises more alleged spiritual authority. Why should not her system be called Eddyism? Sometimes she calls herself the "founder," again, the "discoverer," of Christian Science, and she maintains that it was not known to the modern world until she appeared.

Dowieism and Eddyism agree in certain particulars; both make no use

of medicine and will not allow their devotees to use it, and both require complete subjection, and both have a truly marvelous skill in attracting or extracting pecuniary contributions for themselves and their enterprises.

One of the differences between the schemes of Dowie and Eddy is this; Dowie admits the reality of disease, and charges its origin to the devil, and says that Christ came to destroy the works of the devil, and that faith is the condition of healing, and asserts that those who use medicine cannot be healed, not having faith.

Mrs. Eddy denies that disease is a "reality," calls it a "delusion of mortal mind," does not connect the devil with it in any way and does not require faith, but "understanding." Simpson, of New York, agrees in theory with Dowie, except that he does not believe at all in Dowie's claims to be a special messenger of God, coming in the spirit and power of Elijah, the prophet of whom Moses spoke, or the first apostle. Dowie denounces Simpson without stint. Dr. Buckley then said that his lecture would be devoted to an investigation of the claims of Eddyism to be called Christian Science. He announced that he had one proposition that would certainly command the assent of all present, namely, Christian Science is either wholly true, wholly false, or partly true and partly false. This assembly doubtless consists of some who devoutly believe it to be wholly true, of others who conscientiously believe it to be wholly false and of still others who think there is something true and something false in it. Some of these think that they discern which the truth and which the falsity in it are, others are not quite satisfied and find it something of a puzzle.

James Martineau is credited with this saying: "Every fiction which has at any time taken a strong hold of human belief is the mistaken image of a great truth for which the man of reason will search, at which the man of half reason will sneer as a superstition, and the man of unreason will believe." This statement does not cover the whole case, for many fictions consist of half truths, which half truths can hardly be called mistaken images of a great truth.

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The lecturer then declared his belief that Christian Science is a mixture of "mistaken images, of truths and half truths," the mixture producing the effect of untruths.

Natural Science.

Natural science, or natural law, as the terms are popularly used, is based on a relation of cause and effect. The solar system, the tides, the trade winds, gravitation, magnetism and electricity are reliable entirely because of uniformity of action in which an antecedent known as cause is followed by an invariable consequent called an effect The calculation of an eclipse is made possible by these relations. Every seed brings forth fruit according to its kind. The relative proportion of the sexes remains practically the same from age to age.

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The human body in health and disease is under the same general law. It is easy to distinguish the human body from that of the animal, and a tree from a stone. A stone has no life; the tree has restricted life; the

lower animal life is circumscribed by its body, as is also the animal life of man. All that we know of life is that it is a power which from within resists aggression from without and repairs what damage may be done. If a tree dies it becomes like a stone in the particular that there is no life. Such a change sooner or later occurs in the bodies of living beings whose composition comes under the primary laws of matter. "Health" is the perfect condition of a body having life. By analyzing the word disease it is easy to get a satisfactory definition of health. Disease signifies the absence of ease to a living being in feeling, perception or action. Health, therefore, signifies ease in feeling, perception and action; that is, soundness of body; that condition of its parts and of the whole which guarantees "the harmonious operation of the whole system."

According to natural science there may be general or local disease; it may be in the organic structure, in the blood or the nerves. Food, exercise, rest and sleep in right proportions preserve the human system in health. Disease can be caused by accidents, which derange or destroy any part of the machinery or clog it; over exertion which wears it out, over or under feeding, improper food, innutritious food, effete matter that is not eliminated, internal poisons generated in the body and germs and poisons from without; these may stop the human machinery entirely or damage only one part of it. When one part is damaged it may throw more work upon another part, and thus the condition known as disease may spread. When nothing else is the matter, mere old age is not disease. It is as natural as growth.

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Death may follow old age without disease. The machine is worn out and stops. Ideal old age is seldom reached, death being accelerated by disease or accident. The relation sustained by human beings to the physical universe is such that it is possible that at any time sudden death may occur to persons in health, but observation enables persons to forecast with a fair degree of accuracy, also to assist nature by means of medicine and surgery.

Because of the general uniformity of the operation of nature, the average duration of human life can be computed with much accuracy, and the marvelous systems of life insurance—which rest on the average duration of human life and the compound interest of money—stand before the world as an absolute demonstration of the reliability of the so-called laws of nature.

Christian Science practically denies them all. It denies all that science says about the human body; it affirms that it is a mere dream. But it is on these facts and possibilities that medicine and surgery are based.

Dr. Buckley then expounded

THE THEORY OF CHRISTIAN SCIENCE.

He announced that to prevent misunderstanding or the charge of misrepresentation he would let Mrs. Eddy give the theory in her own words, and then quoted her fundamental principles as follows:

1. "The only realities are the Divine Mind and its ideas." . . . . "Erring mortal views, misnamed

mind, produce all the organic and animal action of the mortal body."

In reasoning about this, Mrs. Eddy says:

"The ineradicable belief that pain is located in a limb which has been removed, when really the sensation is believed to be in the nerves, is an added proof of the unreliability of physical testimony. . . . Electricity is not a vital fluid, but an element of mortal mind—the thought-essence that forms the link between what is termed matter and mortal mind. Both are different strata of human belief. The grosser substratum is named matter. The more etherial is called human mind, which is the nearer counterfeit of the Immortal Mind, and hence the more accountable and sinful belief. . . . You say 'Toil fatigues me.' But what is this you or me? Is it muscle or mind? Which one is tired and so speaks? Without mind, could the muscles be tired? Do the muscles talk, or do you talk for them? Matter is non-intelligent. Mortal mind does the talking, and that which affirms it to be tired first made it so."

2. Mrs. Eddy denies that there is any such thing as prayer in the sense of asking a personal God to do a certain act. Her most frequent assertions are: "God is principle, not person; . . . . the only substance, the only life."

3. She declares that:

"Divine science shows that matter and mortal body are the illusions of human belief, which seem to appear and disappear to mortal sense alone."

4. She declares that:

"Human mortality proves that error has been ingrafted into both the dreams and conclusions of material and mortal humanity."

5. Another passage from Mrs. Eddy is:

"You would not say that a wheel is fatigued, and yet the body is just as material as the wheel. Setting aside what the mind says of the body, it would never be more weary than the inanimate wheel. Understanding this great truth rests you more than hours of repose."

Her conclusion from the whole is:

"Besiege sickness and death with these principles and all will disappear."

Every one of Mrs. Eddy's statements in the foregoing is contrary to the laws of nature, the experience of the human race, and—so far as they touch the Scriptures—entirely contrary to them.

Mrs. Eddy's theory of God is contradictory to the teachings of Christ. Everywhere God is spoken of as a person. "God is a spirit; and they that worship Him must worship Him in spirit and in truth, for the Father seeketh such to worship Him." Here "the Father" is represented as seeking true worshipers; and all the passages in the New Testament relating to the Father speak of Him as a person. Though an infinite being, He is a person in the same sense as human beings are persons. "If ye then, being evil, know how to give good gifts unto your children, how much more shall your Father which is in heaven give good things to them that ask Him."

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Neither the Old Testament writers nor Christ nor the apostles nor the evangelists ever spoke of sickness or

its cure as though they had any knowledge whatever of Mrs. Eddy's theory; but they spoke as though what she teaches is false. There is not a single instance in the Bible to which—without forcing words out of their real meaning — Mrs. Eddy's theory could be applied.

Examples From the Old Testament.

In the Old Testament, Elisha the prophet, notwithstanding the fact that his prayers had restored the widow's son to life, himself dies of lingering disease. The words are: "Now Elisha was fallen sick of his sickness, whereof he died."

Hezekiah the king was extremely sick, and, according to the Scriptures, Isaiah the prophet prayed to God for him, and also applied a plaster of figs as a medicine, which plaster of figs God blessed.

In the Second Book of Kings, first chapter and second verse, is this statement: "Ahaziah fell down through a lattice in his upper chamber and was sick." He sent to inquire of Baal Hebub, the god of Ekron, "whether he should recover of this disease."

The Second Book of Chronicles, sixteenth chapter and twelfth verse, has these words: "And Asa in the thirty and ninth year of his reign was diseased in his feet until his disease was exceeding great." The same book states that God sent a plague on Jehoram; this was the proclamation: "Thou shalt have great sickness by disease of thy bowels, until thy bowels fall out by reason of the sickness, day by day." Thus "God smote him with an incurable disease."

The effects of improper food in causing sickness are mentioned in Proverbs: "Hast thou found honey? Eat so much as is sufficient for thee, lest thou be filled therewith and vomit it."

There is another passage: "The sleep of the laboring man is sweet, whether he eat little or much; but the abundance of the rich will not suffer him to sleep."

Here is still another passage, Proverbs 31:6: "Give strong drink unto him that is ready to perish, and wine unto those that be of heavy hearts. Let him drink and forget his poverty, and remember his misery no more." This shows that by the holy men who were inspired to write the Sacred Scriptures the medical effects of wine and strong drink, and their value in some cases as a stimulant and in others as an opiate were known and acted upon.

Examples From the New Testament.

In the New Testament it was Christ himself who said: "They that be whole need not a physician, but they that are sick." And when Lazarus was ill his sisters sent a message unto Christ, saying: "Lord, behold, he whom Thou lovest is sick."

When Jesus heard that He said: "This sickness is not unto death, but for the glory of God, that the Son of God might be glorified thereby."

In Christ's parable of the Good Samaritan, he "bound up the wounds" of the man who had fallen among thieves, "pouring in oil and wine," these things being the chief medicines in use among the Jews.

The account of the sickness of Dor-

cas and all the circumstances show that they had no such ideas of sickness as are taught by Christian Scientists.

Again, St. Paul speaks of the effects of drunkenness and gluttonness at the Holy Communion, where that festival had been carried to such an extent that he says: "For this cause many are weak and sickly among you, and many sleep."

Paul's sufferings and weakness and painfulness are described, and especially his "thorn in the flesh," and he prayed to God three times that it might depart, but without success.

The prescription from Paul to Timothy is that he should "drink no longer water (exclusively), but use a little wine for his stomach's sake and his other infirmities," and is plainly medical.

Another remark of Paul's shows how little he knew in comparisou with Mrs. Eddy: "Erastus abode at Corinth, but Trophimus have I left at Miletum, sick."

The words of Paul concerning Epaphroditus are also to the point: "For he longed after you all, and was full of heaviness because that ye had heard that he had been sick. For indeed he was sick nigh unto death, but God had mercy on him; and not on him only, but on me also, lest I should have sorrow upon sorrow."

Paul evidently knew nothing of Mrs. Eddy's half truths, and would have included them with the "old wives' fables," against which he warned the disciples.

When St. John describes the final abode of the righteous he says that "there shall be no more death, . . . neither shall there be any more pain." "They shall hunger no more, neither thirst any more." These passages plainly teach that in this world there will be always sickness, pain, death and other consequences of the mortality of the body in which it has pleased the Creator of the universe to imprison the soul of man.

The speaker then took up the rules given by Mrs. Eddy for the practice of Christian Science.

Rules for the Practice of Christian Science.

1. "Anatomy, physiology, treatises on health, sustained by what is termed material law, are the husbandmen of sickness and disease. Clairvoyants and medical charlatans are the prolific sources of sickness, etc. They first help to form the image of illness in the mortal minds by telling patients that they have a disease; and they then go to work to destroy that disease. They unweave their own webs. When there were fewer doctors and less thought was given to sanitary subjects there were better constitutions and less disease."

In the foregoing Mrs. Eddy refers to physicans as medical charlatans. This appears from the closing part of the statement, "when there were fewer doctors," etc. The half truth here is that it *is* possible to produce some forms of sickness by causing patients to believe that they have a disease, and there have been some instances where persons did this and were incapable of restoring patients to health. Death, indeed, has been caused by such misrepresentation, but the statement that anatomy and physiology and treatises on health are the husbandmen of sickness and disease

is untrue. It is false that "when there were fewer doctors and less thought was given to sanitary subjects there were better constitutions and less disease." The average duration of human life has been greatly increased. Many epidemics have disappeared by increased knowledge of sanitary subjects. Even the people of New Orleans, who abominated the very name of General Butler, admit that he taught the people how to keep away the yellow fever by sanitary measures. One hundred and fifty years ago, in some countries, a large minority (and in some sections the majority) were marked with the peculiar scars which smallpox leaves. Fearful plagues spread over the whole world; cholera, yellow fever and other great plagues are found to be either the products of filth or are greatly increased in virulence by its existence, and the theory of the bacterial origin of many has been substantiated.

The more rational thought the world gives to sanitary subjects, the less disease.

2. Mrs. Eddy maintains that diet is of no importance.

"We are told that the simple food our fathers ate assisted to make them healthy, but that is a mistake. Their diet would not cure dyspepsia at this period. With rules in the head, and the most digestible food in the stomach, there would still be dyspepsia."

Here, again, she stumbles over a half truth. People thinking all the time about their food, and following in imagination every mouthful through the processes of digestion, are liable to suffer from indigestion; but those who understand the principles of hygiene select proper food, eat it rationally and live in other respects hygienically will not have dyspepsia, or if, when they have been careless, they are attacked by it, on the return to the practice of hygienic rules it will disappear.

3. Mrs. Eddy teaches that exercise is of no importance.

"Because the muscles of the blacksmith's arm are strongly developed, exercise did it, or that an arm less used must be fragile. If matter is the cause of action, and muscles without the co-operation of mortal mind could lift the hammer, it might be thought true that hammering enlarges the muscles. But the trip hammer is not increased in size by exercise; why not, since muscles are as material as wood and iron?"

Her statements upon this subject, if it were not for her commercial success, would be regarded as evidence of mental derangement. A distinguished lawyer in Massachusetts, in childhood, had the misfortune to lose his left hand by an accident. He grew to manhood, and took, with his right arm, much athletic exercise. It is twice the circumference of the left arm between the elbow and the shoulder. It would be a waste of time to attempt to show further the absurdity and irrationality of the proposition.

4. Mrs. Eddy teaches that for health purposes bathing and rubbing are worse than useless. This is her definite statement:

"Bathing and rubbing to alter the secretions or remove unhealthy exhalations from the cuticle receive a useful rebuke from Christian healing."

When her votaries, therefore, for health purposes resort either to bath-

ing or massage "they are under rebuke," they are contradicting the teachings of her whom they call "Mother."

5. In view of the foregoing, it is not surprising that she states in substance that ignorance is a great advantage to persons who wish to obtain the benefits of her theory.

This is the passage in which the idea often repeated in *Science and Health* is expressed most concisely:

"A patient thoroughly booked in medical theories has less sense of the divine power and is more difficult to heal through the mind than an aboriginal Indian who never bowed the knee to the Baal of civilization."

6. But Mrs. Eddy attributes superhuman healing power to her own writings. These are her words:

"My publications alone heal more sickness than an unconscientious student can begin to reach. If patients seem the worse for reading my book, this change may either arise from the frightened mind of the physician or mark the crisis of the disease. Perseverence in its perusal would heal them completely."

This surely is abnormal self-valuation.

7. Her principal rules for treating patients are as follows:

(1) The healer must study and strengthen his own mind. "Be firm in your understanding that mind governs the body. Have no foolish fears that matter governs, and can ache, swell and be influenced by a law of its own. . . . If you believe in inflamed or weak nerves you are liable to attack from that source. You will call it neuralgia, but I will call it illusion."

(2) "Never tell the sick that they have more courage than strength. Tell them, rather, that their strength is in proportion to their courage. . . . Instruct the sick that they are not helpless victims, but that if they only know how they can resist disease and ward it off, just as possitively as they can resist a temptation to sin."

The foregoing is another instance of stumbling over a half truth. Sometimes sick persons deserve precisely what she here says, but only a limited class; many "are helpless victims." The general hospitals and the insane asylums swarm with them. There is a false courage and there is an apparent strength. False courage can lead people to make efforts that will end in their speedy death, and false strength will cause them to believe that they are well when they are dangerously ill. There are many diseases that cannot be warded off or removed without physical assistance, as many Christian Scientists have found, and, neglecting or refusing that too long, have passed beyond cure.

8. Mrs. Eddy thus instructs her students what to do when the patient grows worse:

"Suppose the patient should appear to grow worse? This I term chemicalization. It is the upheaval produced when the immortal truth is destroying erroneous and mortal belief. Chemicalization brings sin and sickness to the surface, as in a fermenting fluid, allowing impurities to pass away. Patients unfamiliar with the cause of this commotion and ignorant that it is a favorable omen may be alarmed. If such is the case, explain to them the law of this action."

The use of such terms and phrases as "chemicalization," "fermenting fluid," "impurities passing away," by Mrs. Eddy is a singular inconsistency. But the remedy she proposes is only applicable in a small number of cases. In many diseases, whatever is done for the patient, he will appear to grow worse. If he survives the condition, he will recover; if not, he will die or remain ill; but to very many it is impossible "to explain to them the law of this action." Many a Christian Science healer has hurriedly sent for a physician to certify the cause of death. Literally "chemicalization" was really going on, vital laws were ceasing and the processes of decomposition, which are strictly chemical, were beginning.

9. Some of the things which are not to be done she states as follows:

(1) "A Christian Scientist never gives medicine."

(2) "Never recommends hygiene. Never manipulates."

(3) "He never tries to 'focus mind.' Never places patients and practitioner 'back to back.' Never 'consults spirits nor requires the life history of his patient.'"

It is to be noted that Mrs. Eddy despises hygiene as heartily as she does medicine. The irrational presumption which her theory develops appears in the fact that she wishes to know nothing of the life history of the patients. The third of these items is a stroke at her competitors, the mind healers and the spiritualistic healers. Here, however, she fails to note that trying "to focus mind" might produce some effect upon the mind of the class of patients with which she is most successful, and even such a process as placing "patient and practitioner back to back" might have some power for good if the patient thought so."

10. Power to operate at a distance is claimed. What it implies is shown in Mrs. Eddy's own words:

"The following is a case of heart disease which I cured without having seen the patient:

'Please find enclosed a check for five hundred dollars in reward for services that can never be repaid. The day you received my husband's letter I became conscious for the first time in forty-eight hours. My servant brought my wrapper, and I arose from my bed and sat up. . . . . The enlargement of my left side is all gone, and the doctors pronounce me rid of heart disease. I had been afflicted with it from my infancy. It became organic enlargement of the heart and dropsy of the chest. I was only waiting and almost longing to die, but you have healed me. How wonderful to think of it, when you and I have never seen each other.'"

The publication in this account of the five hundred dollar check is a delicate psychological hint as to what is the most acceptable form of gratitude. With such Mrs. Eddy abounds.

But an examination of the statement shows it is quite possible that neither Mrs. Eddy nor the "letter" the husband sent had anything to do with the cure."

The extravagance of the invalid's description deserves attention. She had had "heart disease from infancy;" "it had become organic enlargement of the heart and dropsy of the chest." This being an internal disease, it would be desirable to know

how skillful the persons were who declared her to be suffering from "organic enlargement of the heart."

In any case, if she were ever to recover consciousness it would be at some one time. While in that state unconscious persons frequently have a much needed rest; during that time reconstructive processes often begin. Every nurse is aware that after long periods of unconsciousness persons show frequently considerable improvement; indeed, recovery often dates from such apparent deaths and resurrections. No particulars of the woman's life are given, or whether her cure was permanent, nor what her doctors really thought of her case.

Proof That Eddyism Is Scientifically False.

The lecturer then subjected the theory of Christian Science to a series of practical tests, which he maintained were fatal to Mrs. Eddy's claims:

1. If this theory be true, food should not be necessary. Why eat? Hear Mrs. Eddy:

"Gustatory pleasure is a sensuous illusion, an illusion that diminishes as we understand our spiritual being and ascend the ladder of life. This woman learned that food neither strengthens nor weakens the body—that mind alone does this."

She tries to circumvent testimony of senses thus:

"The truth is, food does not affect the life of man; and this becomes self-evident when we learn that God is our only Life. Because sin and sickness are not qualities of Soul or Life we have hope in immortality; but it would be foolish to venture beyond our present understanding, foolish to stop eating until we gain more goodness and a clearer comprehension of the living God. In that perfect day of understanding we shall neither eat to live nor live to eat."

It is clear that as long as Mrs. Eddy eats she is perpetuating an illusion, or proving herself wrong in her notions. Her theory goes down under the test. For, giving up food, simply brings on the diseases which are the accompaniments of starvation, the end of which is death.

2. Mrs. Eddy denies that drugs have any real power:

"Christian Science divests material drugs of their imaginary power. . . . The uselessness of drugs, the emptiness of knowledge, the nothingness of matter and its imaginary laws are apparent as we rise from the rubbish of belief to the acquisition and demonstration of spiritual understanding."

Some of her followers have gone so far as to say:

"The property of alcohol is to intoxicate, but if the common thought had endowed it simply with a nourishing quality like milk, it would produce a similar effect."

If that is true, if mankind thought so, pure alcohol would be a good thing to nurse children upon and milk would be an intoxicating fluid.

Against this absurdity stands the fact that drugs affect animals, wild or domestic; they also affect idiots.

Mrs. Eddy tries to meet this thus:

"If a dose of poison is swallowed through mistake the patient dies, while physician and patient are expecting favorable results. Did belief cause this death? Even so; and as directly as if the poison had been intentionally taken. . . . The few

who think a drug harmless, when a mistake in a prescription has been made, are unequal to the many who have named it poison, and so the ma-majority opinion governs the result."

This fantastic theory was undoubtedly manufactured in the hope of avoiding the consequences of the originally absurd statement. It goes far to support the belief that Mrs. Eddy now sincerely believes in her theory. For no woman of sense, common or uncommon, would write such nonsense unless self-deceived or deceived by others.

3. Eddyism teaches that accidents to the human body, such as railway accidents, etc., would not produce the results which they appear to produce if it were not that the general belief is that such accidents would have such an effect.

This is Mrs. Eddy's theory in her own words:

"The fear of dissevered bodily members, or a belief in such a possibility, is reflected on the body, in the shape of headache, fractured bones, dislocated joints and so on, as directly as shame is seen in the blush rising to the cheek. The human error about physical wounds and colics is part and parcel of the delusion that matter can feel and see, having sensation and substance."

According to Mrs. Eddy the frightful railroad accidents that are occurring at the present time would do no harm if the passengers actually believed that the collision could not produce any such effects. That this absurdity can be believed raises doubts whether popular education is in many cases much more than a varnish.

4. The existence of insanity overthrows Mrs. Eddy's theories. She says:

"Insanity implies belief in a diseased brain. . . . A bunion would produce insanity as perceptible as that produced by congestion of the brain were it not that mortal minds call the bunion an unconscious portion of the body. Reverse this belief and the results would be different."

In another place she says:

"Those unfortunate people who are committed to insane asylums are only so many well-defined instances of the baneful effects of illusion on mortal minds and bodies."

In the face of all this it is well known that a blow on the head will produce insanity; on the head of an infant or a small child it will arrest development, so much so that the infant thus injured will frequently be considered by its own parents an idiot from birth. Sometimes surgery is able to remove insanity thus caused. Post mortem examinations frequently reveal the cause.

5. If so-called Christian Science be true, its devotees should be able to escape all the conditions and signs of old age. In the beginning of the delusion certain persons looking much younger than their years espoused the science and attracted great attention by their youthful appearance, but one by one they have faded, and their appearance, now wrinkled and gray, most of them compelled to wear glasses, and some of them tottering from rheumatism, presents a melancholly contrast to both their former condition and their pretensions.

6. If Eddyism were true, neither fire nor clothing should be necessary for warmth, for in that case the ef-

fects of absence of heat, like other dreams of mortal mind, are simply illusions.

7. The most potent test is death. Mrs. Eddy's proposition in "Science and Health" is that if death is besieged with her principles it will disappear. If so, those who fully believe, or as she would express it, "understand," should never die; but they do. They die of disease, by the effects of injury, or from old age. Soon Mrs. Eddy will go the way of all flesh.

A Flagrant Inconsistency in Mrs. Eddy's Conduct.

It was reported throughout New England that Mrs. Eddy had applied to a dentist to remove a painful tooth, and that she also applied to the said dentist to give her an anesthetic so that she would not feel the pain of the tooth. For a long time the subject was discussed in the papers. Finally, Mrs. Eddy thought it wise to take up the matter in the Christian Science Journal. She secured from Dr. John M. Fletcher, of Concord, N. H., and published the following over his signature in the Christian Science Journal:

"The story told by the Rev. Dr. Whitaker and others to the effect that Mrs. Mary Baker G. Eddy called at my office in Concord, N. H., in great pain, and had a carious tooth extracted, requesting me to use a local anesthetic before extracting the tooth, is incorrect. Mrs. Eddy did call at my office and had a troublesome tooth extracted. But it was not a carious tooth; neither was she in pain at the time. She did request me to extract the tooth, allowing me to use my own painless method of extracting teeth, which I had recommended.

"I will take no further notice of inquires on this subject.

(Signed) "John M. Fletcher.

"Concord, N. H., November 22, 1900."

It is clear from the above that Mrs. Eddy's tooth was troublesome. If it was troublesome it was because it hurt her. According to her theory it was only "a claim, an illusion of mortal mind." She had the tooth extracted. "The tooth was not a carious one, neither was she in pain at the time," but she went to the dentist because it was troublesome, and "she allowed him to use his own painless method for extracting teeth, which he had then and there recommended to her for that purpose."

In the Christian Science Journal she endeavors to show that she was consistent.

First, she says the practice of surgery is not introduced into Christian Science, and thus proceeds:

"Bishop Berkeley and I agree that all is Mind. Then, consistently with this premise, the conclusion is, that if I employ a dental surgeon, and he believes that the extraction of a tooth is made easier by some application or means which he employs, and I object to the employment of the means, I have turned the dentist's mental protest against myself; he thinks I must suffer because his method is interfered with. Therefore, his mental force weighs against a painless operation, whereas it should be put in the same scale as mine, thus producing a painless operation as a logical result."

The cuttlefish blackens the water in order to escape. That seems to be

the object of the foregoing peculiar passage. Mrs. Eddy implies that if she had objected to the dentist's employing his application, or means, that she would have to suffer; and that his thinking that she would suffer would bring it to pass; but by her consent to the use of it, it works, in some way, with her theory, thus "producing a painless operation."

This is childish. According to her own theory she should have said, "Proceed with your work, I shall feel no pain." Here she seems willing to agree to avail herself of Bishop Berkeley's great name, yet in another place she says:

"Those who formerly sneered at it as foolish and eccentric now declare Bishop Berkeley, David Hume, Ralph Waldo Emerson, certain German philosophers, or some unlearned mesmerist, to have been the real originators of Mind Healing. Emerson's ethics are models of their kind; but even that good man and genial philosopher partially lost his mental faculties before his death, showing that he did not understand the science of mind healing, as elaborated in my 'Science and Health;' nor did he pretend to do so."

In that passage more conceit is concentrated than any other false prophet ever exhibited, and it implies that no person who understands the science of mind healing as elaborated in "Science and Health," will ever partially lose his mental faculties before his death. If it does not imply that it means nothing. Emerson's friends, knowing that it is not uncommon in old age for the mental faculties, depending as they do upon physical conditions, to suffer from the effects of decay in common with other parts of the body, had no motive to conceal his infirmities. Whether the world will ever know what condition Mrs. Eddy's faculties will be in the closing years or months of her life is doubtful; but should she show no marked deterioration it will prove nothing for her theory, since a considerable minority of mankind, when protected from any strain remain, like Oliver Wendell Holmes, the poet physician, John Wesley, William E. Gladstone and Benjamin Franklin, eighty years young."

Explanation of Such Recoveries as Occur Under Christian Science Teaching.

In common with that of Dowie, Simpson, etc., and their followers, much of the testimony upon which Christian Scientists rely is exaggerated or false.

It is often difficult and sometimes impossible to determine the nature of an internal disease. Post mortems often show that the most distinguished physicians of Europe and America have been entirely ignorant of the nature of an internal malady which caused the death of the subject of such post mortem examination. Nor is it always easy in external diseases to distinguish the malignant from non-malignant cancers or tumors. In most cases discrimination is possible, but there is always room for errors in judgment, and it is self-evident that persons who spurn the experience and knowledge of ages are more liable to mistake than others who have had long experience in endeavoring to make a true diagnosis of disease.

Notwithstanding these facts, remarkable cures or cessations of disease have occurred among believers in Eddyism.

How are they to be explained? Many of them belong to the class of so-called self-limited diseases. This is the case with pneumonia. It is a strictly self-limited disease, and without any medicine at all every patient whose strength is sufficient to sustain the body until the reconstruction in the diseased parts takes place, will recover.

But there are diseases that are not self-limited, but are cured by extraordinary excitement and by plainly mental operations. Rheumatism belongs to this class, consequently there are numerous quacks, disposing of metal rings, pads and other means which have no remedial power in themselves. In addition to this many persons who have been treated by the best physicians and have been given up to die have gradully recovered by the influence of their own vital force, and that too, sometimes, when the improper administration of medicine has interferred with their recovery.

For many ages it has been known by the wisest physicians that in many diseases it is a great benefit if persons will not think of them, and that if they expect recovery it is "half the battle." In this way a Christian Science healer can do much good by creating the expectation that good is being done. Among physicians, one will go into a home in such a cheerful manner that the patient feels better as soon as he sees him, and now and then one will be so gloomy that unless he is discharged the patient will probably die. (Dr. Buckley illustrated this point with cases from real life.) Then there are many recoveries from mere natural force, aided by the impression made upon the imagination. For centuries it has been known that warts often disappear speedily after certain absurd practices of incantations. The explanation is that the direction of the mind to the parts of the body where they are causes an increased flow of blood, and, finally they are sloughed off. Scurvy, a very obstinate disease, has succumbed to similar practice. The King's evil takes it name, not from the fact that the King of England had the disease, but because the King's touch in many cases was followed by a disappearance of the symptoms.

Sir Humphrey Davy records that on being called to see a man who was smitten with paralysis, he introduced a thermometer into his mouth for the purpose of taking his temperature. The man, believing it to be for the purpose of relieving him, declared that he felt much better, and Sir Humphrey Davy conducted him toward recovery without any more effective aid than this influence on the imagination. It is quite possible that without such encouragement the man might have improved materially, for many cases of partial paralysis do improve whether treated or not, and a little knowledge of physiology will explain why.

Then there are certain so-called occult causes. In most parts of the world where witches were believed to exist there were and are what are known as witch doctors, who have the power in popular belief, of counter-working the witches.

All supposed occult, but really nat-

ure's methods, whether employed by the Zouave Jacob, who flourished so long in Paris, by Dr. Newton, the Spiritualist healer, or his rival, Bryant, by Mormons, or by any of the itinerent healers of every sort, will appear to a certain extent to be effective, and often there is no recurrence of the symptoms. And no matter what a man's theory is, if he can make the people believe it, he will get all the benefits of the strength of vital force that may be in the patient, the results upon self-limited diseases, plus the mental strength which the faith of the subjects will give. This last is a double result for good, since without that faith they would be depressed; and the effect of depression is to produce disease where there is none, and often to increase the tendency to a fatal extent.

Why Not Leave All Diseases to Nature.

At this point Dr. Buckley raised the question, if this explanation given for the healings which follow Christian Science and other anti-medicine forms of healing is true, why not leave all diseases to nature and use some such method of suggestion to help nature in the fight? There is a plain answer. Many diseases are not self-limited. They are of such a nature that unassisted nature never cures them.

Again, often the people, including both the sufferer and his friends, are alarmed and incompetent to assist nature or to compose the fears of the patient.

Where surgery is actually needed nature never effects a cure without its aid. A broken leg must be set accurately or the man will have a stiff, a crooked, or a shortened leg.

It is said that doctors and surgeons have many failures, and their patients suffer relapse. They do, or else no one would die; but when physicians—provided they are sufficiently educated and skillful to warrant their employment—fail to cure, they have used all the knowledge accumulated by mankind plus their personally acquired knowledge by experience and observation. Whereas, those who despise that knowledge and who profess to have divine power, if unable to do anything that cannot be accounted for by natural causes unwillingly demonstrate that they have not the power they claim.

All of these wonder-workers are subject to similar limitations and relapses. There are diseases which they cannot benefit at all. From some maladies persons recover, but in other cases of the same disease, not distinguishable from the first, these wonder-workers fail.

None of them can restore a limb that has been lost, nor an eye, nor raise the dead; nor can they do any of the distinctive "mighty works" which the New Testament records of Christ and his apostles.

Mrs. Eddy's Successful Compromises, Concessions and Retreats.

1. She is obliged to give up surgery. No real surgical case will Christian Science healers now attempt with her approbation. Finding that she would involve herself in difficulty if she proceeded far in that line, she wrote the following in *Science and Health:*

"Christian Science is always the most skillful surgeon, but surgery is the branch of its healing that will be last demonstrated. However, it is but just to say that I have already in my possession well-authenticated records of the cure, by mental surgery alone, of dislocated hip joints and spinal vertebræ."

This obviously implied that within a short time she expected that its power would be demonstrated. Her statement is of no value, for she gives no authentic records for criticism, either of the injuries or of the cures. "Mental surgery alone" does not allow of any assistance, otherwise the word "alone" would transform the statement into a falsehood. When she issued the Christian Science Text Book she was obliged to write the following:

"Until the advancing age admits the efficacy and supremacy of mind, it is better to leave surgery and the adjustment of broken bones and dislocations to the fingers of a surgeon, while you confine yourselves chiefly to mental reconstruction and the prevention of inflammation."

But in the *Christian Science Journal* she makes a complete change of base, stating that "the practice of surgery is not introduced into Christian Science, whose rules and methods are based upon the examples of Jesus and his followers." This was a desperate proposition, especially as it showed gross ignorance of the Scriptures. The lame and the maimed were healed by Jesus. Mrs. Eddy, in her despair, forgot that Luke, the beloved physician, records in the gospel that the very last miracle of healing performed by Christ was surgical; "and one of them smote the servant of the high priest and cut off his right ear. And Jesus answered and said: 'Suffer ye thus far,' and he touched his ear and healed him." That was neither medicine nor Christian Science.

When Mrs. Eddy was asked why Christians of every sect in the United States failed in their prayers to save the life of President McKinley, she responded:

"Insufficient faith or spiritual understanding, and a compound of prayers wherein one earnest, tender desire works unconsciously against the modus operandi of another, would prevent the desired result. In the practice of materia medica croton oil is not mixed with morphine to remedy dysentery, for these drugs are supposed to possess opposite qualities and to produce opposite effects.

"Our lamented president, in his loving acquiesence, believed that his martyrdom was God's way. Hundreds, thousands of others believed the same, and hundreds of thousands who prayed for him feared that the bullet wound would prove fatal. Even the physicians may have feared thus.

"These conflicting states of the human mind, of trembling faith, hope and fear, evinced a lack of the absolute understanding of God's omnipotence, and thus they prevented the power of absolute truth from reassuring the mind and, through it, resuscitating the body of the patient."

Dr. Buckley pointed out that the physicians for the greater part of the time believed that the president would recover; they issued the most encouraging bulletins, and one of the most celebrated among them declared that

he was sure to recover, and that he might even then be safely taken to Washington, only they should, under the circumstances, be extremely cautious.

The lecturer also pointed out that the post mortem showed that the president was fatally injured from the beginning.

2. She also instructs her healers to summon persons specially educated in the department of obstetrics to take charge of cases of childbirth.

3. She has issued within two years advice to the Christian Scientists concerning infectious and contagious diseases. The following is from the *Christian Science Sentinel* of November, 1902:

Mrs. Eddy advises that:

"Until public thought becomes better acquainted with Christian Science, Christian Scientists shall decline to doctor infectious or contagious disease."

This is a concession that such diseases exist, and that they are not capable at the present time of grappling them. To carry out her advice, however, would require a skilled expert in such diseases to determine in many cases whether they are infectious or not, for the earlier symptoms of several non-contagious diseases are similar to those of several infectious or contagious diseases.

4. She has consented that when healers see that they are not making much progress, and that the patient grows worse, they should notify the person, so that he may send for a physician.

And, fifth, notwithstanding the fact that she declares that all diseases are "mere delusions' of mortal mind," she consents that her representatives should arrange with regular physicians to certify the cause of death, specifying the same in ordinary terms of scientific medicine.

Conclusion.

To all the large hospitals of the country believers in Christian Science have been taken, and many of those who have remained at home, refusing all aid, have died, sometimes in horrible agony, of diseases which, in their earlier stages, are usually readily cured, and till near the time of death the "healers" were repeating their parrot-like statements that they were not helpless victims, but could shake off disease "if they only knew how."

In the history of the world many societies, based on learned ignorance or unlearned fanaticism, have been formed, and for a time their members have appeared to defy sickness and death. Such was the case of the Oneida community. They were rudely awakened from their dream by the drowning of several of their members in going from one station to another. After that they were much perplexed for a time as to whether or not those were true believers. But whenever the members of such societies have begun to grow old the ordinance of nature has been executed upon them all. There is no escape. "It is appointed unto man once to DIE." And if it be appointed unto man once to die, it is appointed unto him that one or more of the causes of death shall operate upon his mortal body.

All such societies have a peculiar fascination for certain types of mind, and occasionally those of the ordi-

narily sound common sense and self-control are convinced of the reality of Dowiesm and Christian Science, not by the arguments of its advocates, but by its apparent general success.

But Eddyism and its healers can never permanently displace the skilled surgeon or the educated physician. Their arrogant and exclusive pretensions are of the nature of a craze. Christian Science as a system of healing would have died already had it not been put forth as a system of religion; and it would have died already as a religion if it had not been put forward as a system of curing diseases.

The majority of mankind will ever prefer a physician who understands both the mind and body, who relieves the patient of the responsibility of treating himself, and thus quiets his mind, strengthens him by hope, and stimulates him by personal presence. They will respect and trust one who will interfere with nature only when it is absolutely necessary and absolutely safe, but who, understanding the human constitution and the mineral, plant and animal substances included in materia medica, can assist struggling nature. They will also prefer a physician who, by the use of anesthetics or opiates, can relieve pains which are incurable, prepare them for surgical operations, the pain and agitation of which would be death, but the endurance of which may preserve life; one also who can smooth the pathway to the inevitable end, and when he has the happiness to see them convalescing can impart such hygienic hints as will prevent the return of the malady or save them from something worse.

Apart from the miracles, which no one can now parallel, the essence of Scripture teaching upon prayer, healing and medicine is found the Book of Ecclesiasticus, one of the Jewish books admitted into the canon of the Roman Catholic Church:

"The Lord hath created medicines out of the earth, and he that is wise will not abhor them.

"My son, in thy sickness be not negligent, but pray unto the Lord, and He will make thee whole. Leave off from sin, and order thy hands aright and cleanse thy heart from all wickedness.

"Then give place to the physician, for the Lord hath created him; let him not go from thee, for thou hast need of him. There is a time when in their hands there is good success.

"For they shall also pray unto the Lord that He would prosper that which they give for ease and to prolong life."—*St. Louis Christian Advocate.*

JOURNAL

MISSOURI STATE MEDICAL ASSOCIATION

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EDITORIAL.

THE DISTRICT SOCIETY.

At the last annual meeting of the Missouri State Medical Association a resolution was passed by the house of delegates to the effect that no district society would be admitted after 1904. It is the intention of the legislative body of the association to have every county in the state organized. It remains for members of the Judicial Council whose districts are not fully organized to give the necessary time so that each county may be brought into line. This does not mean an end of the district societies, but a beginning of the county society. The county society is the unit of organization. It elects delegates to the State Medical Association. These delegates control the policy of

the association and elect delegates to the American Medical Association, who with delegates from other state associations, decide the policy of that organization.

OUR JOURNAL.

The first half year of the existence of the JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION has passed, and though still in its infancy it has already been of much value to the profession of the state. Not only has it published the transactions of the State Association, but articles or abstracts from the pens of men best known in the medical world. It has been an important factor in the organization of the county society and in mainaining the existing organization of the profession of this state. In the January number there will appear a complete roster of physicians of the state of Missouri who are members of the State Association. This roster will be furnished the American Medical Association, who will publish a medical directory during the coming spring. This will contain the names and addresses of all members of the state and territorial associations. The Publication Committee will make a constant effort to improve the official organ, and invites suggestions looking to the betterment of the JOURNAL from members of the State Association. In the near future several departments will be represented, each under charge of someone especially fitted for work in the direction assigned.

ORGANIZATION.

In our last issue we presented half tones of members of the Judicial Council, men upon whom the organization of the State Association depends. These gentlemen are to be heartily congratulated for the work done thus far this year. Already Mercer, Iron, Ralls, Wayne, Madison, Stoddard, Cooper, Washington, Bates, and Crawford counties have been organized and affiliated. Just before going to press a roster of membership with dues and application for charter has been received from Washington county through the councillor for the tenth district, Dr. J. J. Norwine. During the past week Dr. B. M. Hypes, councillor for the ninth district, donated three days to the State Medical Association, visiting St. Genevieve, Cape Girardeau and Perry counties and organized all three, thus bringing into line the entire ninth district. In our next issue we will give complete list of the membership in each of the above named counties.

OBITUARY.

Dr. Theodore F. Prewitt, one of the foremost surgeons of the west, died at his residence, 4917 Berlin avenue, St. Louis, on Monday afternoon, October 17th. Dr. Prewitt was born at Fayette, Howard county Missouri, March 1, 1831. He began life independantly at the age of fourteen years, receiving his early literary and professional education in Missouri. He was graduated from the St. Louis Medical College in 1856. Dr. Prewitt was married twice, first in 1856, while an undergraduate, to Miss Mary Ingram, of Virginia, who died three years later. In 1871 he was married to Miss Nellie Sowers, of Palmyra. During 1871 he was appointed super-

intendent of the St. Louis City Hospital, which position he retained until 1874, when he resigned to go to Europe, where he continued his studies in the clinics of London and Berlin. In 1875 he succeeded Dr. Langford as professor of surgery in the old Missouri Medical College, and later became dean of the Institution. In 1898, when that school became part of the Medical Department of the Washington University, he retained his connection as professor of principles and practice of surgery and clinical surgery. For almost a quarter of a century Dr. Prewitt was chief surgeon of St. John's Hospital, and it was generally conceded that he was one of the ablest diagnosticians in America. At different times he held the office of president of the St. Louis Medical Society, the St. Louis Surgical Society, the St. Louis Obstetrical and Gynecological Society and the Missouri State Medical Association. In 1899 one of the greatest honors that can be conferred upon a surgeon was bestowed upon Dr. Prewitt when he was elected president of the American Surgical Association. Dr. Prewitt is survived by a wife and four children.

NEWS ITEMS.

NEW MEMBERS RECEIVED.

J. E. Parrish Memphis.
I. L. Davis, Granger.
A. H. Mackey, Gorin.
L. M. Coffey, Hitt.
W. R. Ferrell, Bland.
Chas. F. Leach, Feurisville.
Wm. L. Sharp, Mt. Sterling.
John Engelbrecht, Stony Hill.
R. G. Epperly, Prairie Hill.
J. A. Eaton, Belgrade.
James H. Hall, Potosi.
L. T. Hall, Potosi.
J. P. Townsend, Potosi.
W. S. Smith, Belgrade.

According to Dr. A. Passalacqua, antitoxin gives good results in the treatment of pertussis. It acted favorably in his experience in seven very severe cases, even when aggravated by broncho-pulmonary complications. The effect is generally noticeable soon after the first injection, but at least three injections of 1000 units each are required to obtain permanent results.

A valuable anesthetic for inflamed tissues can be had by adding a few drops of 1-1000 solution of adrenalin

to a half to one per cent. solution of cocaine. In injecting this, the first result is an anemia of the skin, due to its action on the vaso-constrictors, followed by a deep anesthesia. Incisions can be made into inflamed tissues with the loss of very little blood, and the method is well adapted for furuncles, anthrax, etc.

In the annual report of Chancellor MacCracken, of New York University, to the board of trustees, he says both the city of New York and the state of New York have lost ground relatively in a shameful degree in their work for medical education. The report of the United States commissioner twenty years ago states the whole number of medical students in the United States as 10,600. Of these the city of New York had 1979, or nearly a fifth. The schools outside the city, at Albany, Buffalo and Syracuse, had 106 additional, making 2085 in the whole state. The latest report of the United States commissioner states the whole number of medical students in the United States as 26,821. Of these there are in the state of New York 2374. Of these only 1800 are in the city; 574 in the rest of the state outside of the city. Thus we have the surprising result that there are fewer medical students in New York City today than there were twenty years ago. The decline in numbers is attributed to the failure of moneyed men to contribute to medical education.

Dr. R. Myers briefly outlines his method of treating typhoid fever. He begins the treatment by giving three 2-grs. doses of calomel, and follows with a saline of castor oil. He does not hesitate to give calomel at any time if it is indicated. Besides the calomel he gives tablets of charcoal and sodium sulphocarbolate until convalescence is well established. The tablets contain 5 grs. of charcoal and 2 grs. of the sulphocarbolate. One to two ounces of olive oil are given every night, and the colon is flushed out every morning. If the kidneys become sluggish an injection of normal solution per rectum is given the patient. Strychnine is administered as soon as there is the first intimation of weakness. The diet consists of milk; also whisky, plain or in egg-nog. Under this treatment the author has not had a death or relapse in over fifty cases. The patient soon loses his pinched expression and becomes cheerful.

According to Dr. P. Ovary, a mixture of equal parts of quinine sulphate and sodium salicylate is much more efficacious in puerperal fever than either medicament administered alone. He administers the combination in doses of 10 grs. every three hours. Three or four doses are generally sufficient to jugulate the fever in mild cases, but it may be administered as long as the case requires. Of twenty-eight cases treated with this combination, twenty-six ended in recovery. According to the author a double decomposition takes place in the stomach, quinine salicylate and sodium sulphate being formed. The quinine salicylate has a superior efficacy on account of its being in *statu nascendi*, while the sodium sulphate also has a favorable laxative action.

Professor Coramilas, of Athens, Greece, read a paper before the Chicago Medical Society, October 5th, giving an epitome of his work from 1891 up to the present time with the use of carbon bisulphide. After detailing numerous experiments on animals with this agent, and presenting a report of sixty-four cases, the author drew the following conclusions: (1) Carbon bisulphide has no disagreeable effects; (2) it has a strong action against tubercle bacilli; (3) by its action as a parasiticide, antizymotic, antiseptic, dissolving and penetrating all tissues, it cures tuberculosis; (4) it should not remain in obscurity, but take its place in therapeutics as a valuable remedy.

Dr. G. S. S. Hirst was called to see a pregnant woman who had previously aborted eleven times during or after the third month of pregnancy. She and her husband were most anxious to have a living child, and with this object she had consulted medical men during each pregnancy after the third month—that is to say, she had been under medical treatment during the last pregnancies. Of the eleven abortions, three had taken place during the third month, two during the fourth month, five during the fifth month, and one during the seventh month. She could only attribute one abortion to physical causes, viz.: one at the fourth month, when from a fright she fell down, and the abortion followed on the same evening. During the last pregnancy she had taken aletris cordial under the advice of her physician, but she miscarried at the seventh month. She could attribute the miscarriage to no cause. The doctor ordered the patient to take 2 1-2 grs. of potassium chlorate three times a day, which she took regularly for three and one-half months, up to within two days of her delivery. She was delivered of a full-time living female child. Her labor was easy and the puerperium was unattended by complications. The child, though small, was perfectly healthy. The mother is a perfectly healthy woman, suffering from no misplacement of the uterus or other cause likely to produce abortion.

The Department of Health and Charities, Philadelphia, has arranged a series of lectures to teachers on "The Detection of Contagious Diseases." School teachers all over the city will thus have an opportunity of gaining knowledge of some of the principles of medicine which will enable them to detect minor ailments in children.

Dr. John R. Hamilton writes to the *British Medical Journal:* "I believe that the bag of today is dangerous, but the danger lies in its size. It can hold too many instruments of offense more potent to damage than the most subtle germ, and at the same time being the germ's true friend. I would recommend all young practitioners to procure a very small leather bag, if they desire to be successful obstetricians. They will find in the course of twenty-five years few mishaps, if they keep their hands clean and do not fuss too much."

Gant describes in detail his method of obtaining local anesthesia by the hypodermic injection of sterile water.

The method is simplicity itself. The only thing necessary is to inject enough sterile water to blanch the tissue in the area of operation. The more or less care used in injecting the water will make the difference between failure and success. The efficiency of the method may be best judged by the extensive use to which it has been put by Dr. Gant. The cases in which he has employed it include radical operations for fissure, ulceration, protruding and non-protuding internal hemorrhoids, cutaneous and thrombotic external hemorroids, polypi, prolapsus ani, ordinary, complete and blind internal and external fistula and ischiorectal, marginal, and follicular abscesses; excision of perineal cysts, sacral dermoids and lipomata of the buttocks; removal of foreign bodies beneath the skin and mucosa; division of the sphincter in constipation, when the muscle was so hypertrophied that divulsion had proved ineffective; fixation of an elongated sigmoid to the anterior abdominal wall; colostomy and exploratory laparotomy. The objections to the method are practically *nil*.

SURGEONS AT PAN-AMERICAN CONGRESS.

Dr. Rudolph Matas, secretary of Section of General Surgery for the United States, asks those who wish to contribute papers to send titles to him at No. 2255 St. Charles avenue, New Orleans. He also announces that the United Fruit Company's agents are offering as a special inducement to American "Congresistas" a reduction of the regular fare for the round trip from New Orleans to the Isthmus to $50.00—that is, $25.00 each way. The steamers leave New Orleans every Friday; the last steamer to leave New Orleans in time for the opening of the congress will sail on December 30, 1904, at 11 A. M. It takes about four and one-half days to reach Colon, and seven days on the return trip on account of a stop-over at Port Limon, where ample opportunity is given to tourists to visit San Jose, the beautiful capital of Costa Rica ("the Paris of Central America"), where the most picturesque tropical scenery can be seen at this season under the most favorable condition.

A young woman was seized with faintness in the street a few days since and an ambulance was called to her relief. The surgeon promptly made a diagnosis of "drunk," and the unfortunate woman was taken to the police station. There the sergeant on duty took a little more pains than the young surgeon, and, finding the patient was perfectly sober, sent her to her home. She was on the way to her physician's office when overcome. Ambulance surgeons have so much experience with "drunks" that they sometimes forget that a man with a fractured skull is a possible find, and that even young women who lose consciousness in the street are not necessarily intoxicated.

According to the *Public Ledger* the American liner Friesland reached port October 13th, from Liverpool, with 110 cabin and 725 steerage passengers. This number is 200 less than was booked to sail on the vessel. The decrease was due to the vigilance of the ship's doctor in preventing tra-

choma suspects from reaching this country. A majority of those rejected had been passed by the shore doctor at Liverpool, only to be rejected when they boarded the steamship.

According to public health and marine hospital reports, the board of health is still engaged in vaccinating the inhabitants of the city of Manila. A striking fact in support of the value of vaccination has been brought forward in this work. The systematic vaccination of the city by districts was commenced in June last. The plan was to vaccinate first those sections of the city in which smallpox had been more or less present since time immemorial. The vaccination in several of these districts had now been completed. One of the worst of them was finished over a month ago, and it is very satisfactory to observe that in this latter district no cases of smallpox have occurred since the vaccination has been finished. One case was reported, but on investigation it was learned that the case had occurred in the person of a child which had not been vaccinated, and which, in all probability, was brought into the district after the vaccinators had completed their work.

Craig, who is an army surgeon, serving at the Government Hospital at San Francisco, has had unusual opportunities for observing malaria in the troops which return from the Philippine Islands. He defines a latent malarial infection as one in which the parasites are demonstrable in the blood of the patient, but in which there are no symptoms which would lead the clinician to suspect malaria. A masked infection is one in which the symptoms are obscured by some accompanying disease, or in which the malarial symptoms are atypical in character. The malarial parasite was demonstrated in the blood of 1,267 cases admitted to the hospital.

In 395 of these cases, 25 per cent., there were either no clinical symptoms of malaria or the symptoms were masked by other diseases. The author tabulates and analyzes all the cases of latent and masked infection and concludes that his study affords convincing evidence of the importance of a blood examination as a routine measure in every case of disease.

It has recently been officially announced from the office of the Isthmian Canal Commission that the following medical officers have been assigned to duty in the canal zone to the functions indicated and with the compensation mentioned in each instance: Colonel William C. Gorgas, U. S. army, chief sanitary officer, $7,500; Medical Director John W. Ross, U. S. navy, directory of hospitals, $7,000; Major Louis A. LaGarde, U. S. army, superintendent of canal hospital, $6,000; Dr. Henry R. Carter, P. H. and M. H. S., chief quarantine officer, $5,750; Surgeon L. W. Spratling, U. S. navy, in charge of sanitary work, $5,250; Dr. A. B. Herrick, pathologist and clinician, $4,000; Captain A. N. Stark, U. S. army, physician, $3,600; Dr. H. A. Stansfield, P. H. and M. H. S., in charge of the laboratory, Panama, $3,000; Mr. J. A. Le Prince, sanitary officer, $3,000; Lieut. Theodore C. Lyster, U. S. army, executive officer,

$2,400; Dr. Lewis Balch, health officer, $3,000; Dr. E. S. Wheeler, assistant physician $2,400; Dr. W. F. Smith, assistant physician, $2,400; Dr. T. B. Wingo, assistant physician, $2,400; Dr. D. Lacroisade, assistant physician, $2,400; Dr. Lloyd Nolan, assistant physician, $1,500. Drs. J. C. Perry, C. C. Pierce and F. W. Ames have also been appointed members of the medical staff, but their salaries have not been determined; they are officers of the government services, and have been ordered to report to the governor of Panama.

To love justice, to long for the right, to love mercy, to pity the suffering, to assist the weak, to forget wrongs and remember benefits, to love the truth, to be sincere, to utter honest words, to love liberty, to wage relentless war against slavery in all its forms, to love wife and child and friend, to make a happy home, to love the beautiful in art, in nature, to cultivate the mind, to cultivate courage and cheerfulness, to make others happy, to fill life with the splendor of generous acts, the warmth of loving words, to discard error, to destroy prejudice, to receive new truths with gladness, to cultivate hope, to see the calm beyond the storm, the dawn beyond the night, to do the best that can be done and then be resigned—this is the religion of reason, the creed of science. This satisfies the brain and the heart.

We have several times spoken of the fact that the Japanese army medical department and Red Cross service are vastly superior to anything yet illustrated by Occidental nations. These criticisms of our medical science and art, together with others (especially that of Major L. L. Seaman before the military surgeons at St. Louis), has moved our government to despatch army surgeons as attaches to the Japanese and Russian armies operating in the far East, providing the consent of the authorities can be secured. The military observers already in the field with the belligerent armies have reported so many interesting facts touching the operations of the medical departments of the two armies that it has become evident to the general staff that there has been almost a revolution in field hospital methods as a result of the war so far as it has gone, and it is regarded as desirable that the United States Medical Department should lose no opportunity of gathering lessons from the great conflict now going on, with a view of improving our own army medical service. It is probable that when accurate statistics are published, it will be found that never in the history of war have there been so few deaths from disease and wounds, compared with the number of actual deaths in battle, as in the Japanese army during this campaign. The study of the methods whereby the Japanese have brought about this magnificent result well deserves the most serious attention of our government. It is evident that the "yellow peril" may imperil white vanity, and that the Occident must again realize the truth of the old proverb, "*Ex Oriente lux.*"

COUNTY SOCIETY NOTES.

ATCHISON COUNTY MEDICAL SOCIETY.

Dr. E. E. Richards, President.
Dr. J. A. Postelwaite, Vice-President.
Dr. A. McMichael, Secretary.
Dr. J. A. Hunter, Treasurer.

The Atchison County Medical Society failed to have a quorum present at its recent meeting time, so was not called to order. This was not because of apathy, but the doctors of the county are overworked just at present and the weather and roads have been very bad. There is society enthusiam sufficient to insure a big meeting just as soon as the present spell of hard work has somewhat abated, when we are promised some excellent papers, which will be sent to the journal for abstracting.

AUSTIN MCMICHAEL, Reporter.

ST. LOUIS MEDICAL SOCIETY.

Dr. B. M. Hypes, President.
Dr. H. C. Dalton, Vice-President.
Dr. T. A. Hopkins, Recording Secretary.
Dr. H. J. Scherck, Corresponding Secretary.
Dr. R. M. King, Treasurer.

IN MEMORIAM.

The St. Louis Medical Society is again called upon to mourn the loss of one of its oldest, most useful and honored members in the death of

DR. THEODORE F. PREWITT,

which occurred on the 17th day of October, 1904, from a stroke of paralysis, in the seventy-second year of his age.

Dr. Prewitt was born in Missouri, where he received both his literary and professional education. In 1857 he was graduated from the St. Louis Medical College, and soon thereafter he served as interne in the St. Louis City Hospital. Later he was made superintendent of that institution and the large experience and practical training which he acquired during these years begat in him a taste, as well as an aptitude, for surgery which undoubtedly shaped, in a large degree, his subsequent career.

Dr. Prewitt was the recipient of many and distinguished honors from his professional confreres: In 1871 he was elected president of this society; he was similarly honored in the St. Louis Obstetrical and Gynecological Society, the St. Louis Surgical Society, the Missouri State Medical Association and in the American Surgical Association; his administration in each of these associations was remarkable for progress along scientific lines and in material growth.

In 1871 he became Professor of Surgery and Dean of the Faculty of the Missouri Medical College. This professorship he held until the incorporation of the Missouri Medical College with the St. Louis Medical College as the Medical Department of Washington University. In the University he became Professor of the Principles of Surgery, filling this chair at the time of his death.

As a surgeon, Dr. Prewitt was skillful, conservative and successful, always consulting the well-being of his patient rather than yielding to a morbid desire to display his skill as an operator. As an educator, his influence with the student body of the

city has for years been to inspire an ambition to the best that may be in scientific and moral attainment. All in all, Dr. Prewitt was a fine example of the dignified, urbane, Christian gentleman and physician.

We do well to honor such a man. To his bereaved widow and family we tender our sincere sympathy.

Resolved, That this action be enscribed on a memorial page of the society's transactions, and that a certified copy be sent to the family of the deceased.

October 29, 1904.

W. M. McPheeters,
C. M. Nicholson,
J. M. Scott,
Committee.

Attest:

T. A. Hopkins,
Reporter.

MARION COUNTY MEDICAL SOCIETY.

Dr. J. S. Howell, President.
Dr. Richard Schmidt, Vice-President.
Dr. F. Janet Reid, Secretary-Treasurer.
Dr. Thomas Chowning, Delegate.

The Marion County Medical Society met in adjourned session November 11th, Dr. J. S. Howell presiding. Dr. Janet Reid reported a case of premature birth, in which the umbilical cord was found to be tied in a hard knot, about six inches from the child. The mother stated that she had felt movement within twenty-four hours of labor. The cord was presented at the society. Dr. J. J. Bourn read a very interesting paper on "The Abortive Treatment of Typhoid Fever" by means of free catharsis, with magnesium sulphate, the application of cold to the abdomen and a strictly milk diet. Dr. J. J. Farrell read a practical paper on "Puerperal Sepsis," instancing two cases which recovered, one after thorough curettage, the other with uterine irrigations of boroglyceride solution and hypodermoclysis. The doctor presented a specimen of double uterus found *post mortem*. This meeting of the society was one of the most interesting yet held. The attendance was good and the discussions animated.

H. L. Banks, Reporter,

COOPER COUNTY MEDICAL SOCIETY.

Dr. J. D. Potts, President.
Dr. P. L. Hurt, Vice-President.
Dr. R. L. Evans, Secretary.
Dr. R. S. Holman, Treasurer.

The Cooper County Medical Society met at Dr. Hurt's office, Dr. J. D. Potts in the chair. The minutes of the last meeting were read and approved. Dr. Potts reported a very interesting case of obstruction of the bowel as the result of peritonitis two years previous. Dr. F. R. Smiley read an excellent paper on "Constipation as an Etiological Factor of Appendicitis." This paper was discussed by all present. By a vote of the society the hour of meeting was changed from 11 A. M. to 1 P. M. of the first Tuesday in each month. Dr. P. L. Hurt presented the names of H. D. Quigg and O. W. Cochran for membership. They were referred to the Board of Censors. Drs. Holman, Lionberger and Taylor were appointed to read papers at our next meeting. There being no further business the meeting adjourned to the first Thursday in December.

R. L. Evans, Reporter.

HOWARD COUNTY MEDICAL SOCIETY.

Dr. A. W. Moore, President.
Dr. J. F. Wood, Vice-President.
Dr. C. W. Watts, Secretary.
Dr. U. S. Wright, Delegate.

The Howard County Medical Society met in regular session at the office of Dr. Watts, in Fayette, November 15th, Dr. Smith presiding. Dr. Wood, of Harrisburg, reported an interesting case of tetanus, young lady, 17 years, following a penetrating wound of the foot by a wood splinter. Serum was used but too late to be of avail. Death occurred on the tenth day. Dr. Champion reported a case of twin delivery with placenta prævia. After two weeks mother and twins were doing well. Election of officers was next in order and resulted as follows: President, Dr. A. W. Moore; vice-presidents, Drs. J. F. Wood and C. P. Magee; secretary and reporter, Dr. C. W. Watts; committee on program and scientific work, Drs. U. S. Wright, C. H. Lee and C. P. Magee; censors, Drs. C. O. Lewis, J. R. Champion and E. C. Haller; committee on public health and legislation, Drs. E. C. Haller, V. Q. Bonham and J. Y. Hume; delegate, Dr. U. S. Wright. The society adjourned to meet on the third Tuesday in December. C. W. Watts, Reporter.

JACKSON COUNTY MEDICAL SOCIETY.

Dr. John W. Kyger, President.
Dr. E. H. Thrailkill, Vice-President.
Dr. E. L. Chambliss, Secretary.
Dr. L. W. Luscher, Treasurer.

The Jackson County Medical Society held its regular bi-monthly meeting in parlors of the Midland Hotel on the evening of November 10th. The scientific program consisted of a paper by Dr. Gordan Beedle, upon the subject of "Intracranial Complications in Fractures of Skull," in which he demonstrated that some of the most important and dangerous complications are hemorrhages of epidural variety, due to lesion in the sinuses, especially the great longitudinal sinus, often filling the basic fossæ; hemorrhages of the subcortical variety where the lesion does not extend to the surface of the cortex resembling, in all, symptoms of an apoplectic condition, and compression from the hemorrhage presenting the condition existing in depression from a fragment, except that the latter would be localized at the point of depression. The doctor reported a very interesting case of skull fracture which had recently been under his care. Doctor Carl Sandzen presented a very interesting paper on "Light Therapeutics." This paper was an able discussion of the subject and the doctor enumerated several cases of skin lesions, which he had successfully treated by this means. Our county society is in a good condition, and as we are drawing nigh to the end of our fiscal year, we are working on a revision of our constitution and by-laws so that we can be be in closer relation with the state association, and so that when we elect our new officers early in December we will be organized in accordance with the suggestions thrown out by our grandfather, the American Medical Association. We have been doing some work for the upbuilding of medical organization since we left St. Louis, by way of adding the names

of a number of good men to our membership roll, and we hope that when we come to report at the next state meeting it will be as a good representation of the profession in Jackson county.

E. L. CHAMBLISS, Reporter.

PLATTE COUNTY MEDICAL SOCIETY.

Dr. A. S. Herndon, President.
Dr. R. P. Davis, Vice-President.
Dr. G. C. Coffey, Secretary.
Dr. J. A. Baldwin, Treasurer.
Dr. S. Reidman, Delegate.

The regular monthly meeting of the Platte County Medical Society was called to order in Platte City, Wednesday, November 2d, by Dr. Herndon. The minutes of the previous meeting were read and approved. Dr. W. H. Coffey, of Kansas City, read a paper, entitled "The Common Cause of Rectal Diseases," which common cause he believes to be our habitual failure to respond to nature's call for emptying the lower bowel. Dr. Davis read a paper on "Pneumonia," in which he maintained that the increased fatality of pneumonia is due to the bacillus of la grippe. Dr. Chastain reported a case of recovery from intestinal obstruction without operation. Following liberal discussion of this last paper the society adjourned.

G. C. COFFEY, Reporter.

LINN COUNTY MEDICAL SOCIETY.

Dr. Kathryn Standley, Vice-President.
Dr. D. F. Howard, Secretary.
Dr. J. L. Burke, Treasurer.
Dr. F. W. Burke, Delegate.

The Linn County Medical Society met in regular session at Linneus, October 25th. The meeting was well attended and much interest manifested. The following papers were read: Dr. Herman E. Pearse, Kansas City, "Retention of the Urine in the Male and Treatment;" Dr. F. W. Burke, Laclede, "Anesthetics." Dr. Burke laid particular stress upon the point that more care should be used in the selection of the anesthetist than the choice of the anesthetic. Dr. J. W. Mason, Brookfield, "Ethics;" Dr. U. C. Dryden, Purdin, "Some Observations on Pneumonia." All of the papers were exceptionally good and freely discussed. The following resolutions were adopted on the untimely death of the president of this society, George Newton Lantz, M. D., of Brookfield, Missouri:

Resolved, That in his death we mourn the loss of one whose whole soul and life was given to the service of others, and whose genial personality was potent for good as he sat at the bedside of suffering. During the entire period of his service he was ever true to the higher ideals and a worthy exemplar of that portion of the ancient pledge of our faith, which says: "With purity and holiness will I pass my life and practice my art." His heart was always in sympathy with the afflicted and his presence a benediction.

Resolved, That in his death this society has lost a valuable and faithful member, the community in which he lived a highminded and progressive citizen, and to his bereaved family we extend our profound sympathy.

Resolved, That a copy of these resolutions be presented to the family and also that the same be published

in the local papers and be spread upon the records of this society.

The January meeting of this society will be held at Laclede. The Grand River District Medical Society will meet in Brookfield, Thursday, December 1st.

D. F. HOWARD, Reporter.

JOHN T. HODGEN DISTRICT MEDICAL SOCIETY.

Dr. T. H. Duckett, President.
Dr. S. A. Johnson, First Vice-President.
Dr. T. C. Boulware, Second Vice-President.
Dr. Ira Smith, Third Vice-President.
Dr. J. T. Lockwood, Secretary.

The John T. Hodgen Medical Society convened at Harrisonville, October 13th, Dr. M. P. Overholser presiding. The minutes of the previous meeting were read and approved. Dr. J. O. Jackson reported a case of sarcoma. Drs. Frankinberger and Thrailkill reported a case of horseshoe fistula. The treatment consisted in thorough opening of all sinuses and curettage. Dr. Warden read a paper entitled "State Care of the Insane." Dr. Frankinberger read a paper on "Early Treatment of Rectal Abscess." Dr. T. F. Lockwood read a paper entitled "Science of Medicine a Looted Profession." The doctor will revise this paper, which was greatly appreciated, for publication. Dr. McVey's demonstration of blood staining proved very interesting and enjoyable. Dr. Pearse read a paper on "Abdominal Tumors." Drs. Breerly and Griffith were elected to membership. Drs. McVey, Lyle, Thrailkill and Haire were made honorary members. The election of officers for the current year resulted as follows: President, T. H. Duckett; first vice-president, S. A. Johnson; second vice-president, T. C. Boulware; third vice-president, Ira Smith; secretary, T. F. Lockwood. Papers will be read at the next regular meeting at in Lamar, January, 1905, by Drs. M. P. Overholser, of Harrisonville; G. D. Allee, of Lamar; M. G. Roberts, of Lamar; C. Wilson, of Nevada; A. L. Fulton, of Kansas City; F. W. Foster, of Butler; W. H. Allen, of Rich Hill, and A. H. Cordier, of Kansas City.

T. F. LOCKWOOD, Reporter.

BUCHANAN COUNTY MEDICAL SOCIETY.

Dr. W. T. Elam, President.
Dr. J. B. Reynolds, Vice-President.
Dr. Chas. Wood Fassett, Secretary.
Dr. J. J. Banbach, Treasurer.
Dr. O. B. Campbell, Delegate.

The last regular meeting of the Buchanan County Medical Society was held on November 4th, with an attendance of forty members. The committee appointed at a previous meeting to investigate the sanitary conditions of the several dairies of the city presented its report. Many dairies were visited and most of them found to be conducted on anything but sanitary lines. Specimens of milk examined demonstrated that a considerable quantity of the milk in daily use throughout the city was far below the standard. Much of it was diluted and the fat percentage was low. Further investigation along this line will be conducted by the society working in conjunction with the municipal health authorities.

The proposed amendment to the by-laws which was aimed at the disfranchisement of members of the society

who habitually absent themselves from the meetings, was defeated under the two-thirds ruling.

Dr. Porter presented a paper on "Prostatectomy." The author reviewed the latest literature on the subject, and gave an excellent comparative description of the most approved surgical technique employed in the removal of the prostate.

The subject of diphtheria was opened for discussion by Dr. Forgrave and thoroughly gone over, nearly every member present taking part in the discussion. The principal feature of the discussions was the almost unanimous approval of the present-day method of treatment of the disease, especially as regards the use of antitoxin. A resolution was passed endorsing the use of antitoxin as a prophylactic and a curative measure. The society adjourned to meet November 18th.

L. A. TODD, Reporter.

CHARITON COUNTY MEDICAL SOCIETY.

Dr. M. B. Austin, President.
Dr. Harry Tatum, Vice-President.
Dr. C. A. Jennings, Secretary-Treasurer.
Dr. J. D. Brummall, Delegate.

The Chariton County Medical Society met in regular session in Salisbury, October 27th, at 8:30 P. M., Dr. M. B. Austin in the chair. Visiting physicians present were Drs. R. G. Epperly, of Prairie Hill, and L. L. Benton, of Kaseyville. The minutes of the previous meeting were read and approved. Dr. R. G. Epperly was unanimously elected to membership.

Dr. McEwen presented an interesting clinical case—a man fifty-five years of age, with chronic enlargement of testicle of six years' standing. The enlargement had increased very markedly within the last six months, and the patient suffered with lancinating pains in the gland. Animated discussion followed the presentation of the case. Dr. McEwen thought the growth malignant, and advised early removal. Dr. Welch agreed. Dr. Burton believed it to be a chronic inflammatory condition, perhaps tubercular, but not malignant, and advised a suspensory and other local treatment. The majority of members diagnosed the case malignant, and Drs. McEwen and Temple will operate in the near future, reporting the results to the society and to the JOURNAL.

Dr. Epperly read an excellent paper on "La Grippe." General discussion followed.

The essayists appointed for the next meeting were Drs. Welch and McEwen. Their papers will be read in Salisbury, November 24th.

C. A. JENNINGS, Reporter.

GRUNDY COUNTY MEDICAL SOCIETY.

The Grundy County Medical Society was to meet October 18th, but, owing to there not being a quorum present, the meeting was not called to order. The papers to have been read were reserved for the January meeting. The spirit of enthusiasm which has become so manifest in most of the organized counties of the state since the advent of the journal has reached some members of the Grundy County Medical Society, and by the time of the next meeting we look for the largest attendance in the history of the society, together with some excel-

lent papers which will be sent to the journal to be abstracted.

E. ALLEN, Reporter.

McDOWELL DISTRICT MEDICAL SOCIETY.

The McDowell District Medical Society met at Bland, Missouri, October 27, 1904, at the home of Dr. J. D. Seba. Drs. J. D. Seba and O. C. Fritts presented clinics, which were discussed by the society after being thoroughly examined by all the members. Following the usual routine business, Dr. J. D. Seba read a paper on "The Use of Forceps in Obstetrical Practice." After liberal discussion of this paper the society adjourned for supper, to reconvene at eight o'clock P. M., when Dr. J. W. Nieweg read a paper on "Tuberculosis." Free discussion followed. After taking up several scientific subjects of much interest the society adjourned to meet at Owensville, on the fourth Thursday in April, 1905, where the following program will be rendered: Dr. J. J. Seba, "Annual Address;" Dr. Chas. F. Leach, "Malaria;" Dr. William L. Sharp, "Gonorrhœa;" Dr. J. J. Ferrell, "Indigestion;" Dr. W. E. Ferrell, "Typhoid Fever;" Dr. John Engelbrecht, not decided; Dr. James Jose, "Punctured Wounds of the Abdomen;" Dr. M. E. Spurgon, "Dysentery;" Dr. I. M. Owens, "Dislocations of the Hip Joint;" Dr. J. W. Nieweg, "Lymphangitis." J. W. NIEWEG, Reporter.

ABSTRACTS.

The Prevention of Appendicitis.—Wm. M. Harsha, in a paper under the above title, read before the Mississippi Valley Medical Association, states that available figures indicate that appendicitis is much more frequent in America than elsewhere. In Illinois, for example, the death rate from this malady in 1893 was 94 per million inhabitants; in Chicago 140 per million. The same high rate is approximated in other parts of this country, especially in those of similar latitude. Abroad, on the other hand, where the mode of living is different, there is less percentage of mortality from appendicitis. In England, for instance, in 1902 (last available statistics) the death rate from this cause was 45 per million.

Considering the causes that might be influenced by treatment the author believes errors of diet to be the most frequent. Attacks commonly follow immoderate eating or the ingestion of indigestible articles of food. The disease most frequently occurs in that sex where and at that age when faulty habits of eating and errors of diet are most common. Acute digestive disturbances cause irritation of the mucosa and stenosis of the base of the appendix, and this condition is followed by infection. Attacks are frequently ushered in by "colds," and may be by cholera morbus. Flatulent dyspepsia is held to be a frequent cause by many authorities. Flatulent indigestion, or constipation with fecal stasis in the cæcum, probably not

only favors the admission of fecal matter into the appendix, but by dragging and torsin causes kinking or closure of the lumen and abrasion of the mucosa, inviting infection. The author quotes George Rubin's experiments, which show how a distended cæcum may admit foreign bodies into the lumen of the appendix that could not be made to enter otherwise.

Right living is the treatment. It is easy to advise to do the operations, and in cases of progressive infection the author advises operation within twenty-four or forty-eight hours. He would also operate in recurrent cases, and in some after even the first attack. But there are those who absolutely refuse to listen to advice as to operation, and there are other cases where diabetes or other complications contraindicate operation. The individual case must be considered, its etiology and peculiarities studied and treatment adapted accordingly. In one set of cases we must cultivate immunity from colds; in another it is necessary to regulate the habits of eating; in still others to correct all digestive disturbance; proper exercise may be called for; or it may be necessary to evacuate the whole digestive tract, keeping it empty and insisting on strict recumbency. In all cases the proper hygienic conditions should be secured to maintain the vital resistance at the highest possible point.

During the past six or seven years Harsha has advised these measures of prophylaxis after the occurrence of an attack where for any reason he did not operate, and so far as he has been able to follow the cases there has been recurrence in not to exceed 20 per cent., and most of these were in young people due, in part, he believes to greater frequency in the young, and in part because of lack of intelligent co-operation on the part of the patient.

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Dr. Alexander McAlister says that the intestinal antiseptics all interfere more or less with the digestive function. The digestive ferments, whether in the body or out, cannot act normally in their presence. This is not the case with calomel. It does not retard a single normal process.

In the presence of free alkalies a small portion of calomel is converted into a black oxide, probably the only form in which the medicament is absorbed. This is still, however, a debated subject; but the mooted questions have only a passing interest, since the antiseptic effect is obtained so largely in an indirect way. There is direct antiseptic action, by reason of which, in a measure at least, the mercurial purgatives are so distinct and unique a class.

The point of greatest interest in the comparison of calomel with the other intestinal antiseptics in this indirect antiseptic action. Calomel liberates the stagnant bile, increases the pancreatic secretion, and stimulates all the intestinal glands. The result is not merely the characteristic large watery calomel stool, but—and this is the feature of greatest interest—the restoration of functions which make for a normal intestinal flora.

In normal digestion provision is made for the neutralization of acids that are no longer required, and for the removal of free alkalies when digestion is completed. In like manner provision is made for the destruction of normal bacteria when their work is

done, and for holding their growth within normal bounds during digestion.

Speaking especially of the treatment of children, calomel is our best intestinal corrective and antiseptic. It is now used more than ever before, and its scope of application is sure to increase. Small doses place the drug in easy control and enable the physician to gauge and prolong the therapeutic effects. At the present time 1-10-grain doses are used more frequently than any other by the profession in general. Smaller doses will come into larger use when the effect is better understood, the drug applied with more skill, and the former bitter hostility gone. That children literalty fatten on calomel is a commonplace observation, according to the author.

As a rule the author administers 1-10-grain doses every hour till one grain has been giveu, or till evacuations occur. If the condition treated is diarrheal, smaller doses are employed or the interval lengthened. Whatever the condition, the first object in treatment is to impress the system by reducing abnormal bacterial activity. In gaining this point the combination of sodium bicarbonate with calomel acts beneficially by facilitating the conversion of the insoluble chloride into soluble compounds. —*Merck's Archives.*

Meat Eating and Appendicitis.—The comparative rarity or total absence of appendicitis in former days and its great and increasing frequency in the last decade or two have been more than once the subject of warm discussion. Some deny altogether that appendicitis is more frequent now than in former years, claiming that the frequency is only an apparent one, because we are better diagnosticians; that a century ago appendicitis passed unrecognized, being diagnosed as inflammation of the bowels, typhlitis, etc. This view is strongly combated by many eminent surgeons, who claim that the older physicians were exceedingly careful and painstaking in their post mortem work, and could not have failed to notice and report inflammations of the appendix, if they had come across any.

The eminent surgeon, Lucas-Championniere, shares the latter view, and believes that one of the principal causes of the increase of appendicitis is to be found in the increase in meat eating. He recognizes that la grippe is also an important cause, but its influence is more of a predisposiug character, while meat eating is the exciting cause. He addressed inquiries to various physicians, and the replies seem to corroborate his views. Dr. Stoicesco, of Bucharest, submitted statistics which show that, while in the city hospitals there were 221 cases of appendicitis among 51,817 patients, or 1 in 234, in the rural hospitals there were only 5 cases of appendicitis in 108,651 patients, or 1 in 22,000! This great discrepancy is explained by the author on the score that while the city dwellers are meat eaters, the rural inhabitants of Roumania are practically all vegetarians. Dr. de Langenhagen, during two and one-half years' practice in New Caledonia, has not heard of a case of appendicitis in a native or any Asiatic vegetarian, while he saw five cases among the meat-eating officials. Dr.

de Zovala, practicing at Guaranilla, Porto Rico, states that there is practically no appendieitis among the native population, which is absolutely vegetarian, while among the meat. eating Americans there have been numerous cases.

After citing other numerous instances, Dr. Lucas-Championniere says that he feels justified in these conclusions: Appendicitis is not a disease made "obligatory" by our anatomical constitution. It is only a recent development, and seems to have had its first origin in the grip. A meat diet plays a considerable role in its development, and a modification of the diet is of the greatest importance as a prophylactic.—Editorial in *Merck's Archives.*

Another Anti-Vaccination Lie Nailed.—An item has been going the rounds of the press relative to the death of William Taylor, a child, at Port Huron, Mich., alleging that the parents believe that his death was caused by vaccination. But an official report to the secretary of the state board of health clearly proves that the alleged belief had no foundation in fact. The report says that a short time after vaccination the child was taken sick with bowel trouble and had no medical attendance, the parents being Christian scientists. After the death of the child, the coroner called in a reputable physician and found the vaccinated arm, aside from a small scar, was exactly the same as the other, and showed no sign of having been inflamed. The physician and the coroner came to the conclusion that the child had died of enterocolitis. It appears that the parents belong to a sect whose members do not believe in vaccination, nor in calling a physician, and undoubtedly would have been pleased to have the death recorded as due to vaccination, especially as otherwise there is a suspicion as to the effect of the lack of proper medical attendance for the relief of the enterocolitis.—*New York Medical Jounal.*

BOOK REVIEWS.

The Transactions of the Thirty-Seventh Annual Session of the West Virginia State Medical Association, 1904.

International Clinics, Edited by A. O. J. Kelly, A. M., M. D., Volume iii, Fourteenth Series. J. B. Lippincott Company, Philadelphia, 1904. Price, cloth, $2.00 net. This volume of the fourteenth series contains a number of most interesting papers. The section on syphilis comprehends over 120 pages of valuable matter, including a number of excellent plates. That this section is of especial value is clear, the contributors being such eminent syphilographers as Alfred Fournier, William S. Goothiel, Ohmann-Dumesnil and Thomas R. Neilson, together with J. W. Ballantyne, on "Fetal Syphilis;" William G. Spiller, on "Syphilis of the Nervous System;" G. Milan, on "Syphilitic Headache

and Lumbar Puncture." In the section on treatment Ismar Boas' contribution, on "Rest Cure in Chronic Constipation," solves that which has been to many a serious problem. T. Stuart Hart contributes an excellent paper on the treatment of diabetes mellitus, Lawrason Brown an exhaustive paper on the "Treatment of the Digestive Disturbances Occurring in Pulmonary Tuberculosis." The section on medicine has papers by such men as W. H. Allchin, who writes on "Indigestion;" William H. Katzenbach, on "Mitral Obstruction and Chronic Bronchitis," and Andrew Duncan on "Scurvy." No less rich in excellent contributions are the sections on surgery and gynecology. Altogether we believe this to be one of the best volumes of this most excellent series.

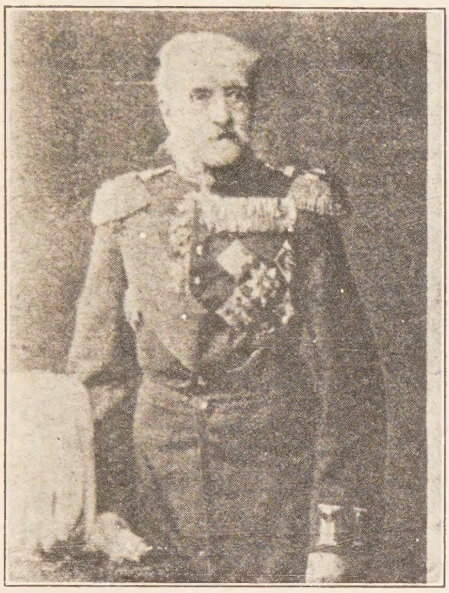
Proceedings of the Connecticut Medical Society, 1904. One Hundred and Twelfth Annual Convention held at New Haven, May 25th and 26th. Published by the Society. This volume of nearly 600 pages is nicely gotten up and well bound. Containing a number of very good papers it is a desirable addition to the physician's library.

Dissection of the Human Body—An Outline for Students Based Upon Morris' Text-Book of Anatomy, by S. M. Yutzy, M. D. Instructor in Osteology and Demonstrator of Anatomy in the University of Michigan. Philadelphia: P. Blakiston's Sons & Co. 1904. We quote from the preface: "The objects of this outline are to direct the student in the order in which to pursue his work and to connect the actual dissection of the cadaver with descriptive anatomy. Also, to inform the student where the description of each structure is found in Morris' Anatomy." Those who have dissected with Gray or Morris and no outline, will at once recognize the value of this little book to the student of anatomy.

The Houseboat Book. The Log of a Cruise from Chicago to New Orleans. By William F. Waugh. The Clinic Publishing Company, Chicago, 1904. This little book of something over 200 pages gives Dr. Waugh's experiences, not all pleasant by any means, during a trip from Chicago to New Orleans by houseboat. The details of the journey will prove of interest and great value to anyone contemplating a similar trip.

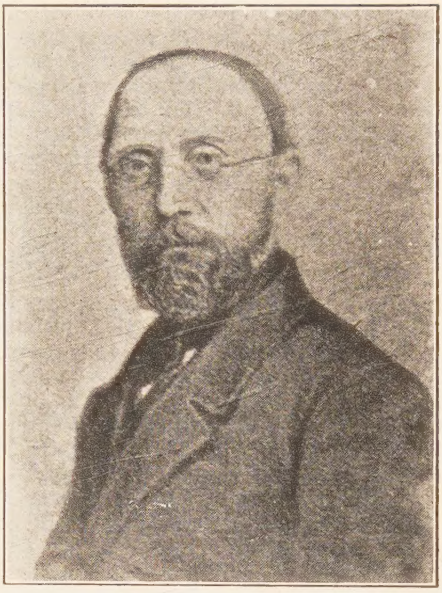
P. Blakiston's Sons & Co., Philadelphia, have gotten out a general catalogue of medical books, which, together with their monthly journal, *The Medical Book News*, contains title and price of all the leading medical books published. The catalogue is interleaved that it may be kept up-to-date with titles of books given in the journal. It is of convenient size and bound in veneered board, the price being 25 cents.

BIOGRAPHICAL SKETCHES.



BERNHARD VON LANGENBECK.

Bernhard von Langenbeck, founder of the German Congress of Surgeons, of which he was for many years president, exerted more influence upon surgery all over the world than any one other man. To him, more than to any other, is due the great importance which pathology is given today in every surgical curriculum. He was for a time a teacher of physiology, but subsequently became the successor of Dieffenbach in the University of Berlin. Genial, learned, indefatigable, he was the ideal accomplished teacher. It would be impossible in any short biographical sketch to do justice to so distinguished a man, to whom the profession owes so much. It has well been said that perhaps the highest testimonial that could be given would be the enumeration of the men who were ever and always his enthusiastic admirers. Born in 1810, he died in 1887.



RUDOLF VIRCHOW.

Rudolf Virchow, German anatomist and anthropologist, was born in Pomerania in 1821. He studied medicine in Berlin, and in 1849 he distinguished himself by attaining in Wuerzburg a professorship, the highest grade in the career of the learned. It is said that while there he studied every night until three A. M., and yet was always out at work by seven. In 1856 he accepted the chair of pathological anatomy in Berlin, where he introduced microscopical anatomy. At the naturalists' conference at Innsbruck, in 1869, he was one of the founders of the German Anthropological Society. In 1873 he became a member of the Academy of Sciences. His series of popular lectures has done much toward spreading scientific knowledge among the people. His first edition of Cellular Pathology appeared in 1858, his great work on tumors in 1866.

COUNTY SOCIETIES IN AFFILIATION WITH THE STATE MEDICAL ASSOCIATION.

COUNTY.	PRESIDENT.	ADDRESS OF PRESIDENT.	SECRETARY.	ADDRESS OF SECRETARY.
Atchison	E. E. Richards	Tarkio	A. McMichael	Rockport.
Audrain	C. T. Vernon	Mexico	C. A. Rothwell	Mexico.
Bates	A. E. Lyle	Butler	E. N. Chastain	Rich Hill.
Boone	R. S. Austin	Halsville	J. M. Fisher	Columbia.
Buchanan	W. T. Elam	St. Joseph	Chas. W. Fassett	St. Joseph.
Butler	Chas. F. Greene	Poplar Bluff	J. J. Norwine	Poplar Bluff.
Caldwell	G. W. Goins	Breckenridge	Tinsley Brown	Hamilton.
Callaway	C. H. Christian	New Bloomfield	M. Yates	Fulton.
Camden	G. M. Moore	Linn Creek	G. T. Myers	Macks Creek.
Carroll	W. C. Baird	Bogard	R. F. Cook	Carrollton.
Cass	H. Jerard	Pleasant Hill	J. S. Triplett	Harrisonville.
Chariton	M. B. Austin	Brunswick	C. A. Jennings	Salisbury.
Clark	H. W. Harris	Winchester	A. C. Bridges	Kahoka.
Clay	L. J. Jones	Linden	F. H. Matthews	Liberty.
Cole	R. E. Young	Jefferson City	G. Ettmueller	Jefferson City.
Cooper	J. D. Potts	Boonville	R. L. Evans	Boonville.
Crawford	W. A. Metcalf	Steelville	A. H. Horn	Steelville.
Current River	J. A. Chilton	VanBuren	Frank Hyde	Eminence.
Daviess	W. N. Keener	Jamesport	M. A. Smith	Gallatin.
Grundy	J. A. Asher	Trenton	W. D. Fulkerson	Trenton.
Henry	J. M. Miller	Montrose	F. M. Douglas	Clinton.
Holt	B. T. Quigley	Mound City	J. F. Chandler	Forest City.
Howard	A. W. Moore	Fayette	C. W. Watts	Fayette.
Howell	J. C. B. Dixon	West Plains	H. C. Shuttee	West Plains.
Iron	W. R. Gay	Ironton	Ira A. Marshall	Ironton.
Jackson	J. W. Kyger	Kansas City	E. L. Chambliss	Kansas City.
Jasper	R. L. Neff	Joplin	J. D. Pifer	Joplin.
Johnson	J. I. Anderson	Warrensburg	E. H. Gilbert	Warrensburg.
John T. Hogden	T. H. Duchett	Harrisonville	T. C. Boulware	Foster.
Laclede	J. M. Billings	Lebanon	J. A. McComb	Lebanon.
Linn	G. N. Lantz	Brookfield	D. F. Howard	Brookfield.
Livingston	R. Barney	Chillicothe	H. M. Grace	Chillicothe.
McDonald	E. F. Doty	Anderson	M. L. Sellers	Anderson.
McDowell Dist.	John D. Seba	Bland	J. W. Nieweg	Owensville.
Macon	W. E. Webb	Macon	G. B. Rush	Macon.
Madison	G. W. Greenwood	Fredericktown	C. U. Davis	Fredericktown.
Maries	O. C. Fritts	Lois	O. N. Schudde	Vienna.
Marion	J. S. Howell	Hannibal	F. Janet Reid	Hannibal.
Mercer	H. P. Chesmore	Princeton	C. R. Buren	Princeton.
Miller	J. W. Temple	Eldon	G. D. Walker	Eldon.
Mississippi	A. W. Chapman	Charleston	H. L. Reid	Charleston.
Moniteau	J. B. Stewart	Clarksbury	J. B. Norman	California.
Monroe	G. B. Dysart	Paris	W. B. A. McNutt	Monroe City.
Morgan	J. D. Hubbard	Versailles	J. T. Beale	Versailles.
Nodaway	J. A. Larrabee	Barnard	F. R. Anthony	Maryville.
Newton	J. W. Lamson	Neosho	Horace Bowers	Neosho.
Pettis	W. C. Overstreet	Sedalia	W. S. Shirk	Sedalia.
Phelps	W. H. Breuer	St. James	S. L. Baysinger	Rolla.
Platte	A. S. Herndon	Camden Point	G. C. Coffey	Platte City.
Putnam	C. H. Carryer	Hartford, Mo	T. A. Townsend	Unionville.
Ralls	O. B. Hickley	New London	J. D. Downing	New London.
Randolph	J. C. Ridings	Cairo	D. A. Barnhart	Huntsville.
Ray	Jas. W. Smith	Richmond	C. B. Shotwell	Richmond.
Reynolds	J. M. Lowery	Centerville	T. W. Chilton	Corridon.
Saline	D. C. Gore	Marshall	D. F. Bell	Marshall.
St. Clair	W. Cline	Appleton City	E. D. Miles	Osceola.
St. Louis	B. M. Hypes	2005 Victor St	T. A. Hopkins	Century Bldg.
St. Louis Co	R. D. Moore	Central	H. G. Wyer	Kirkwood.
Schuyler	J. T. Jones	Queen City	H. E. Gerwig	Downing.
Scotland	W. E. Alexander	Memphis	O. F. Pile	Memphis.
Shelby	Wm. Carson	Shelbyville	L. W. Dallas	Hunnewell.
Stoddard	T. B. Turnbaugh	Bloomfield	R. D. Corbin	Bloomfield.
Sullivan	J. C. Kissinger	Milan	G. S. Milnes	Milan.
Washington	J. A. Eaton	Belgrade	W. S. Smith	Belgrade.
Wayne	L. M. Pettit	Greenville	I. N. Barnett	Piedmont.

County.	Date of Meeting.
Atchison	Quarterly. January, April, July, October.
Audrian	Monthly. First Monday.
Bates	Quarterly. Last Thursday in Feb., May, Aug. and Nov.
Boone	Monthly. First Monday.
Buchanan	Bi-Monthy. First and Third Friday.
Butler	Monthly
Caldwell	Quarterly. July, October, January, April.
Callaway	Monthly. Second Thursday.
Camden	Quarterly. January, April, July, October.
Carroll	Monthly. Second Tuesday.
Cass	Quarterly. First Tuesday of March, June, Sept., Dec.
Charlton	Monthly. Last Thursday.
Clark	Quarterly. First Mondays Feb., April, June, Aug., Oct., Dec.
Clay	Monthly. Last Monday.
Cole	Quarterly. Second Thursday of Jan., Apr., July, Oct.
Cooper	Monthly. First Tuesday.
Crawford	Monthly.
Current River	Quarterly. August, November, February, May.
Daviess	Monthly.
Grundy	Quarterly. July, October, January, April.
Henry	Monthly. Second Tuesday.
Holt	Monthly.
Howard	Monthly. Third Tuesday.
Howell	First Thursday of November, January, March.
Iron	Monthly. First Saturday.
Jackson	Bi-monthly. Second and Fourth Thursday.
Jasper	Bi-monthly. First and Third Mondays.
Johnson	Quarterly. June, September, December, March.
John T. Hodgen	Quarterly. October, January, April, July.
Laclede	Bi-annual. First Mondays May and November.
Linn	Quarterly. October, January, April, July.
Livingston	Monthly. Second Thursday.
McDonald	Monthly. First Wednesday.
McDowell District	Semi-Annually. Fourth Thursday in October.
Macon	Monthly. On or before full moon, Tuesday, 10 a. m.
Madison	Monthly.
Maries	Quarterly. First Thursday of Feb., May, Aug., Nov.
Marion	Monthly. First Friday.
Mercer	Monthly. Second Thursday.
Miller	Quarterly. First Thursday. March, June, Sept., Dec.
Mississippi	Monthly. First Monday.
Moniteau	Quarterly. March, June, September, December.
Monroe	Quarterly. First Tuesday of April, July, October, Jan.
Morgan	Quarterly. First Wed. of March, June, Sept., Dec.
Newton	Monthly.
Nodaway	Monthly. Second Tuesday.
Pettis	Monthly.
Phelps	Quarterly. March, June, September, December.
Platte	Monthly. First Wednesday.
Putnam	Monthly. First Wednesday.
Ralls	Quarterly. January, April, July and October.
Randolph	Monthly.
Ray	Monthly. Third Wednesday.
Reynolds	Quarterly. January, March, June, October.
Saline	Monthly. Second Tuesday.
St. Clair	Quarterly. Second Tues, of March, June, Sept., Dec.
St. Louis	Weekly. Saturdays.
St. Louis County	Monthly. Second Wednesday.
Schuyler	Bi-monthly. July and December.
Scotland	Monthly. Second Tuesday.
Shelby	Quarterly. June, September, December, March.
Stoddard	First Wednesday in March, June, Sept. and Dec.
Sullivan	Monthly.
Washington	
Wayne	Monthly.

It is believed the information in this table is correct to date of going to press. Officers are requested to notify us of any errors or required changes. For further information concerning any Society, address the Secretary.

OFFICERS MISSOURI STATE MEDICAL ASSOCIATION.

President: JABEZ N. JACKSON, Kansas City, Mo.

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COUNCILLOR DISTRICTS.

FIRST DISTRICT.—F. B. HILLER, Kahoka. Counties, Clark, Scotland, Schuyler, ***Adair, Knox, Lewis.***

SECOND DISTRICT.—J. B. BRUMMALL, Salisbury. Counties: Linn, Carroll, Chariton, Livingston, Grundy, Sullivan, Mercer, Putnam.

THIRD DISTRICT.—E. H. MILLER, Liberty. Counties: Clay, Ray, Platte, ***Clinton,*** Caldwell, ***DeKalb, Gentry, Harrison, Worth,*** Davies.

FOURTH DISTRICT.—C. H. WALLACE, St. Joseph. Counties: Buchanan, Holt, Atchison, Nodaway, ***Andrew.***

FIFTH DISTRICT.—L. W. DALLAS, Hunnewell. Counties: Macon, Shelby, Marion, Randolph, Monroe, Ralls.

SIXTH DISTRICT.—WOODSON MOSS, Columbia. Counties: Audrain, Callaway, ***Montgomery, Warren, Pike,*** Boone, Howard.

SEVENTH DISTRICT.—W. B. DORSETT, St. Louis. Counties: ***St. Charles,*** St. Louis, ***Lincoln.***

EIGHTH DISTRICT.—F. J. LUTZ, St. Louis. Counties: ***Franklin, Gasconade,*** Crawford.

NINTH DISTRICT.—B. M. HYPES, St. Louis. Counties: ***St. Genevieve, Cape Girardeau, Perry.***

TENTH DISTRICT.—J. J. NORWINE, Poplar Bluff. Assistant to Dr. Norwine: Dr. I. A. Marshall, Ironton. Counties: Dr. Norwine—Butler, Mississippi, ***Scott, New Madrid, Bollinger, Dunklin,*** Stoddard, ***Center, Ripley, Jefferson,*** Washington, ***Francois.*** Dr. Marshall—Iron, Reynolds, Wayne, Madison.

ELEVENTH DISTRICT.—W. S. ALLEE, Olean. Counties: Miller, Morgan, Maries, Cole. Moniteau, Camden, ***Osage.***

TWELFTH DISTRICT.—R. D. HAIRE, Clinton. Counties: Pettis, Johnson, ***Lafayette,*** Henry, St. Clair, ***Benton,*** Saline, Cooper.

THIRTEENTH DISTRICT.—M. P. OVERHOLZER, Harrisonville. Counties: Jackson, Cass, Bates.

FOURTEENTH DISTRICT.—A. R. SNYDER, Joplin. Counties: McDonald, ***Berry,*** Newton, Jasper, ***Lawrence, Dade, Barton, Cedar, Vernon.***

FIFTEENTH DISTRICT.—Counties: ***Hickory, Stone, Taney, Greene, Christian, Dallas, Polk.***

SIXTEENTH DISTRICT.—DR. R. L. JOHNSON, Rolla. Counties: Phelps, ***Pulaski,*** Laclede, ***Webster, Ozark, Dent, Texas, Wright, Douglas,*** Howell, ***Oregon.***

Counties in bold face type not yet organized.